COMMISSION
OF THE
EUROPEAN COMMUNITIES

European Cooperation and
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Scientific and Technical Research

EUROCOP-COST
Secretariat

EUCO/MDU/40/74
XII/825/74

COST - PROJECT 64b

ANALYSIS OF ORGANIC MICROPOLLUTANTS IN WATER

MANAGEMENT COMMITTEE

A COMPREHENSIVE LIST OF POLLUTING SUBSTANCES WHICH HAVE BEEN IDENTIFIED IN VARIOUS FRESH WATERS, EFFLUENT DISCHARGES AQUATIC ANIMALS AND PLANTS, AND BOTTOM SEDIMENTS

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A comprehensive list of polluting substances which have been identified in various fresh waters, effluent discharges, aquatic animals and plants, and bottom sediments

compiled

by

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October 1974

CONTENTS

INTRODUÇTION

The following list of organic substances present in the environment has been compiled from data contributed by the Laboratories participating in the COST project 64b 'Micropollutants' and from the literature dating from 1960 onwards. However, some important data published prior to that date, has been included especially if there is a scarcity of information available after 1960. The list is not fully comprehensive in certain cases where there is a wealth of repetitive information e.g pesticides and PCBs. Here a representative selection of data has been taken.

The main sub-headings have been listed in order of general toxicity and compounds which could be assigned to several sub-groups have been usually classified in the one at the top of the list. Assignment has been made according to chemical structure, however, in two cases a physical property has been used instead, i.e optical brighteners and surfactants.

In many cases it has been possible to identify positively polluting compounds but not to estimate their concentration in the sample. Data have been recorded in this report even where concentrations have not been measured since identification of pollutants is of great value in itself. Concentrations have been invariably given in g/l for water samples and mg/kg for solid samples using factors of 10^{-3} (mg/l, μg/kg), 10^{-6} (μg/l, ng/kg), etc. for lower concentrations. N.D. (not determined) signifies that the compound is present but a quantitative estimation is not possible using the method of analysis employed.

No attempt has been made to give the full systematic names of compounds in every case. The name as provided by the contributing laboratory or as abstracted from the literature has been used. Where trade names are more familiar these have been listed. In many cases trivial names or non-systematic names have been used because identification is incomplete. Data relating to groups of compounds rather than individual substances are also reported in several cases.

Where information is available the type of sample under investigation and the location of sampling has been stated by use of appropriate key letters and numbers, (see page vi). Examples include sewage effluent, E.D3, textile mill effluent, E.I14, lowland river waters, SF.RL, etc. An oblique stroke stands for 'receiving' e.g. SF.R/E.18 refers to a river water receiving a petroleum refinery effluent.

The various analytical techniques employed in the analysis have also been listed where data is available, (see page ix). Where data has been abstracted from the literature the appropriate references are given in the bibliography (page 96) and where contributed by a participating laboratory indication has been given by use of key letters (see page v).

A fairly large addendum has been appended to the data list. This includes information from a second literature search and data received from participating laboratories during or after the compilation of the list.

KEYS

Major Contributing Laboratories:

CEN	Centre D'Etudes Nucleaire De Grenoble, France.
EAWAG	Eidgenössische Technische Hochschulen, Switzerland.
EPA	Environmental Protection Agency Laboratories, USA.
ISU	Iowa State University, USA.
KK	Kernforschungszentrum Karlsruhe, German Federal Republic.
RID	Rijksinstituut voor Drinkwatervoorziening, The Netherlands.
RVA	Royal Veterinary and Agricultural College, Denmark.
SETUDE	Société D'Etudes Pour Le Traitement et L'Utilisation Des Eaux.
SLEE	Société Lyonnaise Des Eaux et De L'Eclairage, France.
UM	University of Mainz, German Federal Republic.
UNS	University Novi Sad, Yugoslavia.
UZ	Gaschromatographisches Laboratorium der Universität Zürich, Switzerland.
*WPRL	Water Pollution Research Laboratory, U.K.
†WRA	Water Research Association, U.K.

* now WRC (Water Research Centre, Stevenage Laboratory).

† now WRC (Water Research Centre, Medmenham Laboratory).

Type of sample

SF	Surface waters	
L	Lakes, fjords and reservoirs	
1		Zurich
2		Constance
3		Superior
4		Ukranian reservoirs
5		Russia
6		Michigan
7		Isefjord (Denmark)
8		Clayton Lake (New Mexico)
9		Grand Lake (Ohio)
10		Japan
11		New Zealand
12		Ontario lakes
13		France
14		Great Lakes (USA & Canada)
15		Sweden
LR	Land run-off	
1	from crop spraying	
2	forest spraying	
R	River water	
RL	Lowland rivers	
RU	Upland rivers	
1		Danube (Novi Sad)
2		Essex rivers (U.K.)
3		Kent rivers "
4		Lee "
5		Rhine
6		Thames (U.K.)
7		U.K. rivers
8		Volga
9		Seine
10		Kanawha (W.Virginia)
11		Escambia (Florida)
12		Charles (Boston)
13		Kennet (U.K.)
14		Trent "
15		Pskov region (USSR)
16		Soviet rivers
17		Waal (Netherlands)
18		Japanese rivers
19		Mississippi (USA)
20		Snake River (USA)
21		Colorado River (USA)
22		Red River (USA)
23		Chattahoochee R.(Alambama)
24		Savannah R. (USA)
25		Merrimack R. (Mass)
26		Yakima R. (Washington)
27		Yellowstone R. (Montana)
28		Hudson R. (USA)
29		Missouri R. (USA)
30		Brazos R. (Texas)

31	Rio Grande (Texas)
32	Sacramento R. (California)
33	Columbia R. (Oregon)
34	Connecticut R. (USA)
35	Allegheny R. (USA)
36	Ohio R. (USA)
37	Arkansas R. (USA)
38	Apalachicola R. (USA)
39	R. Meuse (The Netherlands)
40	R. Scheldt (The Netherlands)
41	Potomac R. (USA)
42	Susquehanna R. (USA)
43	Niagara R. (USA)
44	Mohawk R. (USA)
45	Tombigbee R. (Alabama)
46	Black Warrior R. (Alabama)
47	Don (Yorkshire, U.K.)
48	Aire (U.K.)
49	Calder (U.K.)
50	Bain (U.K.)
51	Witham (U.K.)
52	Gt.Ouse (U.K.)
53	Flit (U.K.)
54	Roding (U.K.)
55	Chelmer (U.K.)
56	Milwaukee R.
57	Italian rivers
58	Czechoslovakian rivers
59	USA rivers
60	Illinois rivers
61	Kansas rivers
62	R. Ruhr
63	R. Rhone
64	R. Gota (Sweden)
65	Wabash R. (Indiana)
66	Tamagewa (Japan)
67	Netherlands rivers
68	Maas(Netherlands)

E Effluent discharges

D Waste water from various stages of treatment of sewage and industrial wastes.

1	crude sewage
2	settled sewage
3	effluent from a biological treatment plant
3a	" " an activated sludge plant
3b	" " a percolating filter
4	" " an oxidation pond
5	" " sludge conditioning
6	chlorinated biologically treated effluent
7	effluent from physico-chemical treatment

I Industrial effluent discharges

1	from acrylamide manufacture
2	clay pits
3	coal washing

	4	herbicide manufacture
	5	paper mills
	6	mothproofing of woollens
	7	water works sludge conditioning
	8	petroleum refining
	9	wood preserving plant
	10	pesticide manufacture
	11	shale refining
	12	coking works
	13	kerosene and paraffin processing
	14	textile finishing
	15	paint manufacture
	16	rubber industry
	17	power station cooling water
	18	nylon production
	19	tar distillation
	20	latex manufacture
	21	dye manufacture
	22	acrylic fibre manufacture
	23	chemical production
	24	explosives manufacture
	25	carbet factory
	26	glass manufacture
	27	metal works
	28	printing works
	29	cement production
	30	fibreglass manufacture
	31	plastics manufacture
	32	clothes production
	33	foundries
	34	die, moulding, stamping and casting
	35	chipboard plant
LF		Landfill leachate
SB		Subterranean waters
	1	Iowa, USA
	2	Germany
	3	U.K.
	4	Wisconsin wells
	5	Michigan wells
	6	Switzerland
T		Tap water
	1	New Orleans, USA
	2	Czechoslovakia
	3	Zurich
	4	Germany
	5	U.K.
	6	The Netherlands
	7	USA
	8	New Jersey, USA
RF		Rainfall

S	Solid samples
SD	sediments
F	fish
A	algae
P	plankton
WP	water plants
PC	polychaetes
C	crustaceans
P & B	prosobranches and bivalves
SS	digested sewage sludge
H	humus
AS	activated sludge

Analysis and/or estimation:

c	Colorimetric analysis
f	Fluorescence photometry
glc	Gas liquid chromatography
hplc	High pressure liquid chromatography
ir	Infrared spectroscopy
lc	Liquid Chromatography
ms	Mass spectrometry
nmr	Nuclear magnetic resonance
pc	Paper chromatography
sf	Spectrofluorimetry
ssms	Spark source mass spectrometry
tlc	Thin layer chromatography
uv	Ultraviolet spectroscopy
v:f366	'Vitatron' plate scanner: fluorescence detection method at 366 nm.

DATA LIST

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key) Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	Reference
POLYNUCLEAR AROMATIC HYDROCARBONS AND BENZENE						
Acenaphthene	1.7×10^{-6}	ISU	SB1		glc ms uv	1
		EPA	E.I8		glc ms	2
	0.2×10^{-3}	"	E.I9		"	"
		"	E.I10		"	"
Acenaphthylene	19.3×10^{-6}	ISU	SB1		glc ms uv nmr	1
		EPA	E.I8		glc ms	2
Alkyl naphthalenes	$<5 \times 10^{-6}$	ISU	SB1		ms	1
Anthracene	$1.6\text{-}7.0 \times 10^{-6}$		E.I12		lc uv	3
Anthracene and phenanthrene	0.7×10^{-6}	CEN	SF.R	Oct 1971	glc ms	
		KK	SF.R5	1970/71	"	4
			SF.R12	1971	"	5
1,2-Benzanthracene		UM	SF.R5		pc uv	6,7
3,4-Benzanthracene	27×10^{-3}		E.I19			8
	0.6×10^{-3}		E.D3/E.I19			"

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Benzene	~0.1 x 10^{-9}		T2		glc ms	9
		UZ	SF.L1		"	10
3,4-Benzfluoranthene		UM	SF.R5		pc uv	6,7
	2.0-6.7x10^{-9}	"	T4		tlc	11
	0.6 - 9x10^{-9}	"	SB2		"	"
	12-80x10^{-9}	WRA	SF.R6	1973	"	
	5-20x10^{-9}	"	SF.R4	"	"	
	1 x 10^{-9}	"	SB3	"	"	
	5-10x10^{-9}	"	SF.R13	Nov 1973	"	
	20-25x10^{-9}	"	SF.R14	1973	"	
	10 x 10^{-9}	"	E.D3b	Nov 1973	"	
	3-12x10^{-9}	"	T5	1973	"	
10,11-Benzfluoranthene		UM	SF.R5		pc uv	6,7
11,12-Benzfluoranthene		UM	SF.R5		pc uv	6,7
	0.9-3.4x10^{-9}	"	T4		tlc	11
	0.2-3.5x10^{-9}	"	SB2		"	"
	4-12x10^{-9}	WRA	SF.R6	1973	"	
	<5-15x10^{-9}	"	SF.R4	"	"	
	1 x 10^{-9}	"	SB3	"	"	
	2 -8x10^{-9}	"	T5	"	"	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
11,12-Benzfluoranthene (contd)						
	$4\text{-}5 \times 10^{-9}$	WRA	SF.R13	Nov 1973	tlc	
	$15\text{-}30 \times 10^{-9}$	"	SF.R14	1973	"	
	10×10^{-9}	"	E.D3b	Nov 1973	"	
1,12-Benzperylene						
	$0.14\text{-}0.4 \times 10^{-6}$		E.I12		lc uv	3
		UM	SF.R5		pc uv	6,7
	$0.8\text{-}7.1 \times 10^{-9}$	"	T4		tlc	11
	$0.7 - 5 \times 10^{-9}$	"	SB2		"	"
	$20\text{-}60 \times 10^{-9}$	WRA	SF.R6	1973	"	
	$15\text{-}50 \times 10^{-9}$	"	SF.R4	"	"	
	2×10^{-9}	"	SB3	1973	"	
	$7.5\text{-}10 \times 10^{-9}$	"	SF.R13	Nov 1973	"	
	$20\text{-}50 \times 10^{-9}$	"	SF.R14	1973	"	
3,4-Benzpyrene						
	10×10^{-9}	UM	T		pc uv	7,12
		"	SF.R5		"	6
	0.1×10^{-9}		SF.R8/E.I8			13
	$1\text{-}10 \times 10^{-9}$		SF.R15			14
	1.7×10^{-3}		E.D3/E.I19			8
	$0.34\text{-}1.0 \times 10^{-6}$		E.I12		lc uv	3
	$30\text{-}300 \times 10^{-6}$		E.D1/I8,11,12			15
	1×10^{-6}		T/E.D1/I8,11,12]			"
	0.5×10^{-3}		ED1/I11			16
	$130\text{-}290 \times 10^{-6}$		E.D3/I12			"
	6×10^{-3}		E.I13			"
	$520\text{-}630 \times 10^{-6}$		E.I12			"
	8.2-17		SD.R/E.I12			"
	15		SD.R9			"
	15		SD.L2			"
	$3\text{-}290 \times 10^{-6}$		E.I12			17
	0.1×10^{-3}		E.I11			18

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
3,4-Benzpyrene (contd)	$40\text{-}290\times10^{-6}$		E.I12			18
	$50\text{-}500\times10^{-9}$		E.I8			19
	$0.3\text{-}8.6\times10^{-9}$	UM	T4		tlc	11
	$0.4\text{-}5\times10^{-9}$	"	SB2		"	"
	$16\text{-}50\times10^{-9}$	WRA	SF.R6	1973	"	
	$10\text{-}20\times10^{-9}$	"	SF.R4	"	"	
	6×10^{-9}	"	SB3	"	"	
	$7.5\text{-}10\times10^{-9}$	"	SF.R13	Nov 1973	"	
	$30\text{-}50\times10^{-9}$	"	SF.R14	1973	"	
	20×10^{-9}	"	E.D3b	Nov 1973	"	
	$5\text{-}12\times10^{-9}$	"	T5	1973	"	
Biphenyl		KK	SF.R5	1970/71	glc ms	4
		CEN	SF.R	1972	"	
		EPA	SF.R/E.I14		"	2
		UZ	SF.L1		"	10
Chrysene		UM	SF.R5		po uv	6
1,2,5,6-Dibenzanthracene		UM	SF.R5		po uv	6
			SF.R8/E.I8			13
Dimethylnaphthalene isomers		KK	SF.R5	1970/71	glc ms	4
		UZ	FS.L1		"	10
		EPA	E.I8		"	15
		"	LF/E.I8,15		"	"
2,6-Dimethylnaphthalene	15×10^{-6}	EPA	E.I18		glc ms	2,20
Ethylnaphthalene isomer		EPA	E.I8		glc ms	2,20

Material	Concentration (g/g, g/l, g/g-solids, g/g-soln. samples)	Notes (see Key) Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	Cross-refs
Fluoranthene						
		UM	SF.R5		pc uv	6
	$20\text{-}100\times10^{-9}$	"	T4		tlc	11
	$6.5\text{-}100\times10^{-9}$	"	SB2		"	"
	0.6×10^{-3}	EPA	E.I9		glc ms	2
			SF.R12	1971	"	5
	$20\text{-}70\times10^{-9}$	WRA	SF.R6	1973	tlc	
	$15\text{-}75\times10^{-9}$	"	SF.R4	"	"	
	11×10^{-9}	"	SB3	"	tlc	
	$20\text{-}30\times10^{-9}$	"	SF.R13	Nov 1973	"	
	$100\text{-}150\times10^{-9}$	"	SF.R14	1973	"	
	40×10^{-9}	"	E.D3b	Nov 1973	"	
						3
Fluoranthene and pyrene						
	0.2×10^{-6}	CEN	SF.R	Oct 1971	glc ms	
Fluorene						
	0.17×10^{-3}	EPA	E.I9		glc ms	2
		"	E.I8		"	2,20
Indene						
	18×10^{-6}	ISU	SB1		glc ms uv	1
		UZ	T3 & SF.L1		glc ms	22
	26×10^{-6}	EPA	E.I8		"	2
Indeno(1,2,3-cd)pyrene						
		UM	SF.R5		pc uv	6
	$0.4\text{-}3.0\times10^{-9}$	"	T4		tlc	11
	$0.2\text{-}5 \times 10^{-9}$	"	SB2		"	"
	$8\text{-}50\times10^{-9}$	WRA	SF.R6	1973	"	
	$5\text{-}20\times10^{-9}$	"	SF.R4	"	"	
	1×10^{-9}	"	SB3	1973	"	
	$4\text{-}7.5\times10^{-9}$	"	SF.R13	Nov 1973	"	
	$10\text{-}25\times10^{-9}$	"	SF.R14	1973	"	

Substance	Concentration (g/l-waters, mg/kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Derivation	
Methylbiphenyl isomers		EPA	E.I8		glc ms	2,20
3-Methylbiphenyl		EPA	LF/E.I8,15		glc ms	20
Methylethylnaphthalene isomer		EPA	E.I8		glc ms	2,20
Methylindene	2×10^{-6}	EPA	E.I8		glc ms	2
3-Methylindene	3×10^{-6}	EPA	E.I8		glc ms	2
Methylindene isomers	18.8×10^{-6}	ISU	SB1		ms	1
Methylnaphthalene isomers			SF.R12	1971	glc ms	5
		KK	SF.R5	1970/71	"	4
		EAWAG	SF.L	1972	"	
		EPA	E.I9		"	2
		"	E.I10		"	"
		"	LF/E.I8,15		"	20
		UZ	T3 & SF.L1		"	22
			SF.R5		"	23
1-Methylnaphthalene	11×10^{-6}	ISU	SB1		glc ms uv ir	1
		UZ	SF.L1		glc ms	10
		EPA	SF.R/E.I14		"	2,20
	$5\text{-}25 \times 10^{-6}$	"	E.I8		"	20
	2×10^{-6}	"	E.I16		"	"
		"	E.I17		"	24

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
2-Methylnaphthalene						
		EAWAG	SF.L	1972		
		UZ	SF.L1		glc ms	10
	$13-30 \times 10^{-6}$	EPA	E.I8		"	2,20
		"	E.I17		"	24
Methylphenanthrene						
		EPA	E.I9		glc ms	2
Naphthalene						
		EAWAG	SF.L	1972		
		KK	SF.R5	1970/71	glc ms	4
		ISU	SB1		ms	1
	10×10^{-6}		SF.R10		glc ir	25
		UZ	T3 & SF.L1		glc ms	22
		"	SF.L1		"	10
		EPA	E.I18		"	2
	53×10^{-6}	"	E.I8		"	2,20
		"	E.I10		"	2
		"	SF.R11		"	20
			SF.R5		"	23
	$0.1-3.4 \times 10^{-6}$		SF.R12	1971	hplc	5
Phenanthrene						
	1.4×10^{-3}	EPA	E.I9		glc ms	2
Pyrene						
		CEN	SF.R	1970	glc ms	
		EPA	E.I9		"	2
			SF.R12	1971	"	5
	$0.43-1.55 \times 10^{-9}$		E.D1		lc uv	3
	$0.23-1.25 \times 10^{-9}$		E.D3a		"	"
	0.45×10^{-9}		E.D3b		"	"
	$2.7-7.0 \times 10^{-6}$		E.I12		"	"

Substance	Concentration (g/l-waters, g/g-dry solid samples)	Notes (see Key)				Bibliography
		Laboratory	Type of sample	Date of sampling	Analysis and/or Derivation	
Pyrene and fluoranthene	0.2×10^{-6}	CEN	SF.R	Oct 1971	glc ms	
o-Terphenyl		UZ	T3 & SF.L1		glc ms	22
Tetramethylnaphthalene		KK	SF.R5	1970/71	glc ms	4
Polynuclear hydrocarbons	$<10 \times 10^{-9}$	WPRL	E.D3b	Jan 1972	hplc	
	50×10^{-9}	UM	SB2		tlc	11
	$0.1\text{-}1.3 \times 10^{-6}$	"	SF.R5		"	11,21
	$\sim 100 \times 10^{-9}$	"	T4		"	11
	130×10^{-6}	"	E.D3		"	"
	$<1\text{-}2 \times 10^{-3}$		SD.R15			14
	$<5 \times 10^{-3}$		A.R15			"

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
AMINES AND DERIVATIVES						
Acrylamide	16×10^{-6}	WRA	E.I2	1970	glc	26
	1.2×10^{-6}	"	SF/E.I2	"	"	"
	0.3×10^{-6}	"	"	"	"	"
	$0.74\text{-}42.0 \times 10^{-6}$	"	E.I3	"	"	"
	$0.47\text{-}1.2 \times 10^{-6}$	"	E.I5	"	"	"
	$0.2\text{-}32.0 \times 10^{-6}$	"	E.I7	"	"	"
	0.1×10^{-6}	"	E.D5	"	"	"
	1.1×10^{-3}	"	E.D1	"	"	"
	0.28×10^{-3}	"	E.D3	"	"	"
Aminomethylpyridine		UZ	SF.L1	Sept 1973		10
o,m,p-Aminophenol		UNS	SF.R1	Aug 1972	tlc	
Aniline	8.0×10^{-3}	WPRL	LF	1973	glc ms	
			SF.R/E.I12, 16,21			27
	$1.2\text{-}2.3 \times 10^{-3}$		E.I19		glc	28
	16.5×10^{-3}		E.I12		"	"
			SF.R17	1972	glc ms	29
o-Anisidine			SF.R17	1972	glc ms	29
Benzidine	$0.205 - 0.439 \times 10^{-3}$		SF.R18/E.I21	Dec 1964		30
Bromo-diethylaniline			SF R17	1972	glc ms	29

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
N-Butylphenylsulphonamide		KK	SF.R5	1970/71	glc ms	4
Chloroaniline		EPA	T	Sept 1973		24
			SF.R17	1972	glc ms	29
Chlorotoluidine			SF.R17	1972	glc ms	29
4,4'-Diamino-dicyclohexylmethane	0.4×10^{-3}	EPA	E.I18			2
Dibutylamine	$<1.0 \times 10^{-3}$	EPA	E.I20			2
Dichloroaniline			SF.R17	1972	glc ms	29
Diethylamine	up to 1.0		E.D1/E.I4, 16	1967		31
			SF.R16			32
N,N-Diethylformamide	$<1.0 \times 10^{-3}$	EPA	E.I20			2
Dimethylamine	up to 1.0		E.D1/E.I4, 16	1967		31
			SF.R16			32
Ethylamine	up to 1.0		E.D1/E.I4, 16	1967		31
			SF.R16			32

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Ethyl carbamate		EPA	E.I5			2
EDTA	$0.1-0.2 \times 10^{-3}$	WPRL	E.D3b	1973	glc	
N-(Ethylphenyl)acetamide		KK	SF.R5	1970/71	glc ms	4
N-Ethyltoluidine		KK	SF.R5	Nov 1971	glc ms	4
Methylamine	up to 1000		E.D1/E.I4, 16 SF.R16	1967		31 32
2-Methylaniline	$0.4-0.8 \times 10^{-3}$ 1.9×10^{-3}		E.I19 E.I12		glc "	28 "
3-Methylaniline	$0.6-1.2 \times 10^{-3}$ 4.4×10^{-3}		E.I19 E.I12		glc "	28 "
4-Methylaniline	$0.6-0.7 \times 10^{-3}$ 2.0×10^{-3}		E.I19 E.I12		glc "	28 "
p-Methyl-N-butylbenzamide		KK	SF.R5	1970/71	glc ms	4
Methyltoluidine			SF.R17	1972	glc ms	29
Nitroaniline			SF.R17	1972	glc ms	29

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Nitrotoluidine			SF.R17	1972	glc ms	29
Naphthylamine and benzidine	0.275 - 0.387 x 10^{-3}		SF.R18/E.I21	1964		30
NTA	0.1-0.34x10^{-3}		E.D1		lc glc ms	33
	1.8-1.9x10^{-3}		"	Nov & Dec	"	"
	4.0-5.3x10^{-3}		E.D2	"	"	"
	0.17-1.1x10^{-3}		E.D3	"	"	"
	0.36-1.56x10^{-3}		E.D4	"	"	"
N-Phenylphthalimide		WPRL	LF		glc ms	
Toluidine		KK	SF.R5	Nov 1971	glc ms	4
			SF.R17	1972	"	29
Tributylamine			SF.R17	1972	"	29
Triethylamine			SF.R16			32
Triethyl urea	6.4 x 10^{-3}	EPA	E.I20			2
Trimethylamine			SF.R16			32
Urea	20 x 10^{-6}	WPRL	E.D3b	Jan 1973	hplc c	
	up to 22.1x10^{-3}		E.D1	1968		34

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
CYANIDES AND AZO COMPOUNDS						
Acrylonitrile	0.1	EPA	E.I22		glc ms	2
		"	SF.R11/E.I22]		"	20
Adiponitrile	0.32	EPA	E.I18		glc ms	2
Azobenzene		KK	SF.R5	1970/71	glc ms	4
Azoxybenzene		KK	SF.R5	1970/71	glc ms	4
Copper phthalocyanide		EPA	E.D1/I15	Apr. '72	c ms sems	24
Dichlorobenzonitrile		KK	SF.R5	1970/71	glc ms	4
2,6-Dichlorobenzonitrile	8.82×10^{-6}		SF.IR1			35
Dicyanobenzene		KK	SF.R5	1970/71	glc ms	4
Isocyanic acid		EPA	T1			36
Phthalic acid dinitrile		KK	SF.R5	1970/71	glc ms	4

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
NITRO AND NITROSO COMPOUNDS						
Chlorodinitrobenzene		KK	SF.R5	1970/71	glc ms	4
Chloronitrobenzene		KK	SF.R5	1970/71	glc ms	4
		EPA	T1			36
			SF.R17	1972	glc ms	29
Chloronitrotoluene		KK	SF.R5	1970/71	glc ms	4
			SF.R17	1972	"	29
Dichloronitrobenzene		KK	SF.R5	1970/71	glc ms	4
Dichloronitrotoluene		KK	SF.R5	1970/71	glc ms	4
Dinitrobenzene		KK	SF.R5	1970/71	glc ms	4
4,6-Dinitro-o-cresol	18×10^{-3}	EPA	E.I23		glc ms	2
2,4-Dinitrotoluene	0.19	EPA	E.I24		glc ms	2
2,6-Dinitrotoluene	0.15	EPA	E.I24		glc ms	2
	0.02×10^{-3}	"	E.D4/I24		"	"
		"	T1			36
		KK	SF.R5	1970/71	glc ms	4

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
3,4-Dinitrotoluene	40×10^{-3}	EPA	E.I24		glc ms	2
Methylnitroquinoline			SF.R17	1972	glc ms	29
o-Nitroanisole		KK	SF.R5	1970/71	glc ms	4
Nitrobenzene		KK	SF.R5	1970/71	glc ms	4
			SF.R17	1972	"	29
"	0.11×10^{-3}	EPA	E.I23			2
		"	T1			36
Nitrobenzoic acid		KK	SF.R5	1970/71	glc ms	4
Nitrobiphenyl		KK	SF.R5	1970/71	glc ms	4
o-Nitrochlorobenzene	37×10^{-6}		SF.R19/E.I			37
	$1\text{-}2 \times 10^{-6}$		SF.R19/E.I19]			"
	up to 21×10^{-6}		SF.R19			38
Nitrocresol		KK	SF.R5	1970/71	glc ms	4
2-Nitro-p-cresol	9.3×10^{-3}	EPA	E.D4/I23		glc ms	2
Nitroethoxybenzene		KK	SF.R5	1970/71	glc ms	4

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Nitronaphthalene		KK	SF.R5	1970/71	glc ms	4
			SF.R17	1972	"	29
o-Nitrophenol	1.4×10^{-3}	EPA	ED4/I23		glc ms	2
Nitrotoluene		KK	SF.R5	1970/71	glc ms	4
o-Nitrotoluene		EPA	E.D4/E.I5		glc ms	2
	$0.15\text{-}7.8 \times 10^{-3}$	"	E.I24		"	"
	12×10^{-6}	"	E.D4/I24		"	"
		"	SF.R11		"	20
	$3.1\text{-}16.0 \times 10^{-6}$		SF.R17	1972	"	29
m-Nitrotoluene		EPA	E.I24		glc ms	2
		"	SF.R11		"	20
p-Nitrotoluene	0.04×10^{-3}	EPA	EI.23		glc ms	2
	8.8×10^{-3}	"	EI.24		"	"
		"	SF.R11		"	20
Nitroxylene		KK	SF.R5	Nov '71	glc ms	4
			SF.R17	1972	"	29
2-Nitro-m-xylene		KK	SF.R5	1970/71	glc ms	4
Nitroxylenol		KK	SF.R5	1970/71	glc ms	4
2-Nitro-m-xylol		KK	SF.R5	1970/71	glc ms	4

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
2,4,6-Trinitrotoluene	0.7×10^{-3}	EPA	EI.24		glc ms	2

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ORGANO PHOSPHORUS COMPOUNDS						
Carbophenothion	up to 8×10^{-6}	WPRL	SF.R2		glc	
DEF,(S,S,S,Tributylphosphorothioate)			E.I23	1966		39
Diazinon	up to 16×10^{-9}	WPRL EPA	SF.R2 SF.R45	1968	glc glc ms tlc	20
Malathion	up to 0.3×10^{-6}	WPRL EPA	SF.R2 SF.R45	69/70	glc glc ms	20
Ronnell (trolene)	0.2×10^{-3}	EPA	RF			40
Tributyl phosphate		KK	SF.R5	1972	glc ms	4
Tri-n-butyl phosphate		UZ	SF.L1			10
Triethyl phosphate		EPA	E.I17		glc ms	24
Tris-(2-chloroethyl) phosphate		KK	SF.R5	1972	glc ms	4
Tris-(2-ethylhexyl) phosphate		KK	SF.R5	1972	glc ms	4

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ORGANO HALOGENS						
Aldrin						
	6×10^{-9}		SF.R22	1964		41
	3×10^{-9}		SF.R20	1959		"
	2×10^{-9}		SF.R23	1962		"
	$<1 \times 10^{-9}$		SF.R24	1958–65		"
	$<1 \times 10^{-9}$		SF.R25	1961		"
	$<1 \times 10^{-9}$		SF.R26	1958		"
	$<1 \times 10^{-9}$		SF.R27	1964		"
	0.26×10^{-6}		SF.R28	"		42
	$>0.11 \times 10^{-6}$		SF.R	1964–66		"
	0.02×10^{-6}		SF.R29	May '68		43
	$0.01–0.04 \times 10^{-6}$		SF.R30	1967		"
	0.02×10^{-6}		SF.R31	June '67		"
	0.02×10^{-6}		SF.R21	Feb '67		"
	0.01×10^{-6}		SF.R32	"		"
	0.01×10^{-6}		SF.R26	Oct '66		"
	0.01×10^{-6}		SF.R20	Feb '67		"
	0.01×10^{-6}		SF.R33	"		"
	1×10^{-6}		SF.R20			44
	85×10^{-9}		SF.R21	1964		45
	1×10^{-6}		SF.R20	"		46
	5×10^{-9}		SF.R	1966		47
	4×10^{-9}	WRA	SF.R3		glc	21
		EPA	E.I10		glc ms	2
Arochlor 1260						
		EPA	E.I10		glc ms	48
Benzene hexachloride (BHC)						
	4×10^{-9}		SF.R34	Sept '66		49
	34×10^{-9}		SF.R28	"		"
	8×10^{-9}		SF.R23	"		"
	13×10^{-9}		SF.R35	"		"
	$2–56 \times 10^{-9}$		SF.R36	"		"
	$11 \text{ \& } 12 \times 10^{-9}$		SF.R19	"		"
	23×10^{-9}		SF.R31	"		"
	6×10^{-9}		SF.R21	"		"
	4×10^{-9}		SF.R22	1965		45
	2×10^{-9}		SF.R36	"		"
	22×10^{-9}		SF.R38	"		"
	11×10^{-9}		SF.R32	"		"
	4×10^{-9}		SF.R22	1958–64		"
	3×10^{-9}		SF.R29	"		"
	$<1 \times 10^{-9}$		SF.R24	"		"
	up to 0.75×10^{-6}		T/LR1			50

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
α-BHC						
	$5-54 \times 10^{-9}$	WRA	SF.R3	65/66	glc	21
	1.63×10^{-6}	"	SF.RL7	Nov'66	"	"
	up to 10×10^{-9}	"	SF.RU7	"	"	"
	$\sim 7 \times 10^{-6}$	WPRL	E.D1	1966	glc	51
	$\sim 0.7 \times 10^{-6}$	"	E.D2	"	"	"
	$\sim 0.4 \times 10^{-6}$	"	E.D3b	"	"	"
	$\sim 130 \times 10^{-6}$	"	S.SS	"	"	"
	$\sim 40 \times 10^{-6}$	"	S.H	"	"	"
	$1-16 \times 10^{-9}$	"	SF.R47	"	"	"
	$61-430 \times 10^{-9}$	"	SF.R48	"	"	"
	$13-379 \times 10^{-9}$	"	SF.R49	"	"	"
	543×10^{-9}	"	SF.R48	Feb '68	"	"
	70×10^{-9}	"	SF.R49	"	"	"
	$1-4 \times 10^{-9}$	"	SF.R50	1968	"	"
	$1-4 \times 10^{-9}$	"	SF.R51	"	"	"
	$1-6 \times 10^{-9}$	"	SF.R52	"	"	"
	$1-16 \times 10^{-9}$	"	SF.R53	"	"	"
	$1-6 \times 10^{-9}$	"	SF.R54	"	"	"
	$1-8 \times 10^{-9}$	"	SF.R55	"	"	"
γ-BHC (Lindane)						
	$9-113 \times 10^{-9}$	WRA	SF.R3	Nov '66	glc	21
	$10-140 \times 10^{-9}$	"	SF.RL7	"	"	"
	up to 10×10^{-9}	"	SF.RU7	"	"	"
	50×10^{-9}	WPRL	E.D36	June '71	"	
	5×10^{-9}		SF.R29	65/66		52
	$5-10 \times 10^{-9}$		SF.R37	"		"
	5×10^{-9}		SF.R30	1966		"
	$5-20 \times 10^{-9}$		SF.R21	"		"
	$5-10 \times 10^{-9}$		SF.R31	65/66		"
	5×10^{-9}		SF.R32	1966		"
	$5-10 \times 10^{-9}$		SF.R26	"		"
	5×10^{-9}		SF.R20	Apr. '66		"
	$5-20 \times 10^{-9}$		SF.R33	1966		"
	10×10^{-9}		SF.R37	July'68		43
	10& 20×10^{-9}		SF.R30	1967		"
	10×10^{-9}		SF.R31	June '67		"
	10×10^{-9}		SF.R26	Oct '66		"

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
γ-BHC (cont.)						
	$18-390 \times 10^{-9}$	WPRL	E.D3		glc	51
	130×10^{-9}	"	E.D4		"	"
	$9-330 \times 10^{-9}$	"	SF.R4	1966	"	"
	$56-1430 \times 10^{-9}$	"	E.D3b	Mar. '66	"	"
	$\sim 13 \times 10^{-6}$	"	E.D1	1966	"	"
	$\sim 3 \times 10^{-6}$	"	E.D2	"	"	"
	$\sim 1 \times 10^{-6}$	"	E.D3b	"	"	"
	$\sim 300 \times 10^{-6}$	"	S.SS	"	"	"
	$\sim 100 \times 10^{-6}$	"	S.H	"	"	"
	$12-40 \times 10^{-9}$	"	SF.R47	"	"	"
	$34-126 \times 10^{-9}$	"	SF.R48	"	"	"
	$6-108 \times 10^{-9}$	"	SF.R49	"	"	"
	622×10^{-9}	"	SF.R48	Feb. '68	"	"
	197×10^{-9}	"	SF.R49	"	"	"
	$4-24 \times 10^{-9}$	"	SF.R50	1968	"	"
	$9-38 \times 10^{-9}$	"	SF.R51	"	"	"
	$4-20 \times 10^{-9}$	"	SF.R52	"	"	"
	$10-50 \times 10^{-9}$	"	SF.R53	"	"	"
	$7-30 \times 10^{-9}$	"	SF.R54	"	"	"
	$8-98 \times 10^{-9}$	"	SF.R55	"	"	"
Bromobenzene		EPA	T1			36
Bromochlorobenzene		EPA	T1			36
Bromodichloromethane		EPA	T/SF.R36		ms	47
Bromoform		EPA	T1			36
Bromophenyl phenylether		EPA	T1			36
		"	T/SF.R36		glc ms	47
Chlordane						
	0.5×10^{-3}		RF			40
	75×10^{-9}		SF.R23	Sept. '66		49
	6×10^{-9}		SF.R32	"		"
		EPA	E.I10		glc ms	48
Chlordene		EPA	E.I10		glc ms	48
Chlorobenzene		EPA	T1			36
	5.5×10^{-6}	CEN	SF.R	1972	glc ms	53

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Chlorobenzene (contd)		EAWAG	SF.L	1972		
		UZ	SF.L1			10
		EPA	T		glc ms	24
2-Chlorobenzoic acid	0.25×10^{-3}	EPA	E.I23			2
	0.26×10^{-6}	"	E.D6		glc ms	
3-Chlorobenzoic acid	0.62×10^{-6}	EPA	E.D6		glc ms	
4-Chlorobenzoic acid	1.1×10^{-6}	EPA	E.D6		glc ms	
8-Chlorocaffeine	1.7×10^{-6}	EPA	E.D6		glc ms	
4-Chlorocresol		CEN	SF.R	1972	glc ms	
Chlorodibromomethane		EPA	T/SF.R36		ms	47
Chlorodimethoxybenzene		KK	SF.R5	1970/71	glc ms	4
Bis(2-chloroethoxy)ether	140×10^{-3}	EPA	E.I16		"	2
Bis(2-chloroethyl)ether	0.16×10^{-3}		E.I16			
	41×10^{-6}	EPA	SF.R10			25
		"	T/SF.R36		glc ms	47
		"	SF.R19			36
		"	T1			36
Chloroform		EPA	T1			36
	0.91×10^{-3}		T2		glc ms	9
6-Chloroguanine	0.9×10^{-6}	EPA	E.D6		glc ms	
3-Chloro-4-hydroxybenzoic acid	1.3×10^{-6}	EPA	E.D6		glc ms	
Chlorohydroxybenzophenone		EPA	T/SF.R36		ms	47
4-Chloromandelic acid	1.1×10^{-6}	EPA	E.D6		glc ms	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Chloromethoxypentachlorobenzene		KK	SF.R5	1970/71	glc ms	4
2-Chloro-1-methylethyl ether			SF.R5		glc ms	23
4-Chloro-3-methylphenol	1.5×10^{-6}	EPA	E.D6		glc ms	
Chloromethylphenoxyacetic acid	1×10^{-3}	WRA	E.I4	1973	glc ms	
Chloro-β-naphthol		KK	SF.R5		glc ms	4
2-Chlorophenol	1.7×10^{-6}	EPA	E.D6		glc ms	
3-Chlorophenol	0.51×10^{-6}	EPA	E.D6		glc ms	
4-Chlorophenol	0.69×10^{-6}	EPA	E.D6		glc ms	
2-(4-Chlorophenoxy)-2-methylpropionic acid	1.0×10^{-6}	EPA	E.D3a		glc ms	
4-Chlorophenylacetic acid	0.38×10^{-6}	EPA	E.D6		glc ms	
Chloropyridine		EPA	T1			36
4-Chlororesorcinol	1.2×10^{-6}	EPA	E.D6		glc ms	
5-Chlorosalicylic acid	0.24×10^{-6}	EPA	E.D6		glc ms	
Chlorotoluene			SF.R5		glc ms	23
5-Chlorouracil	4.3×10^{-6}	EPA	E.D6		glc ms	
5-Chlorouridine	1.7×10^{-6}	EPA	E.D6		glc ms	
8-Chloroxanthine	1.5×10^{-6}	EPA	E.D6		glc ms	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
DDE						
	up to 5.5×10^{-3}	WRA	SF.R3	1965/66	glc	21
		KK	SF.R5			4
	$4-11 \times 10^{-9}$		SF.R19	1958-65		45,49
	5×10^{-9}		SF.R20	Sept '64		45
	$4-20 \times 10^{-9}$		SF.R21	1964-68		43,45,52
	4×10^{-9}		SF.R22	Sept '64		45
	"		SF.R24	"		"
	$10-30 \times 10^{-9}$		SF.R26	1966-68		43,52
	2×10^{-9}		SF.R27	Sept '65		49
	$4-6 \times 10^{-9}$		SF.R28	1958-65		45,49
	$3-10 \times 10^{-9}$		SF.R29	1964-67		43,45
	$4-60 \times 10^{-9}$		SF.R30	1966-68		43,49,52
	$4-20 \times 10^{-9}$		SF.R31	1958-68		"
	10×10^{-9}		SF.R32	May '68		43
	$1-10 \times 10^{-9}$		SF.R33	1964-67		43,45,49
	$5-20 \times 10^{-9}$		SF.R37	1965-67		43,45
	0.2×10^{-3}		RF			40
	4×10^{-9}		SF.L3	1958-65		49
	$<0.02 \times 10^{-6}$		E.D3		glc	54
	up to 0.2×10^{-6}		E.D3/I6		"	"
	$0.1-0.3 \times 10^{-6}$		E.D3/I6,25		"	"
DDT						
	up to 0.164×10^{-6}	WRA	SF.R3	1965/66	glc	
	ND	WPRL	E.D3b	1969	"	21
	$20-60 \times 10^{-9}$		LR			40
	1.2×10^{-6}		RF			"
	$0.01-3.4 \times 10^{-3}$		SF.L4			55
	$0.3-2 \times 10^{-6}$		SF.L5			56
	17×10^{-9}		SF.R10	Sept '64		45
	"		SF.R11	Sept '65		41
	$1-20 \times 10^{-6}$		SF.R19	1957-65		41,45,47
	$17-44 \times 10^{-9}$		"	1964-66		41,43,49
	$14-60 \times 10^{-9}$		SF.R20	"		45,52
	$10-25 \times 10^{-9}$		"	1966-68		43,49
	$21-70 \times 10^{-9}$		SF.R21	1964-66		41,45,52
	$10-120 \times 10^{-9}$		"	1967/68		43
	$31-72 \times 10^{-9}$		SF.R22	1964/65		41,45
	$7-17 \times 10^{-9}$		SF.R23	1958-65		"
	$16-20 \times 10^{-9}$		SF.R24	Sept '64		45
	$10-65 \times 10^{-9}$		SF.R26	1966-68		43,52
	2×10^{-9}		SF.R27	Sept '65		41
	$5-7 \times 10^{-9}$		SF.R28	Sept '66		49
	$1-20 \times 10^{-6}$		SF.R29	1957		57
	$16-50 \times 10^{-9}$		"	1964-66		41,45,52
	$10-90 \times 10^{-9}$		"	1966-68		43,49
	$10-123 \times 10^{-9}$		SF.R30	"		43,49,52
	$12-149 \times 10^{-9}$		SF.R31	1958-65		41,45
	$10-50 \times 10^{-9}$		"	1966/67		43,49,52
	$9-50 \times 10^{-9}$		SF.R32	1958-68		41,43
	$10-34 \times 10^{-9}$		SF.R33	1964-68		43,45
	$20-23 \times 10^{-9}$		SF.R36	1958-66		41,49

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
DDD (TDE)						
	$5-10 \times 10^{-9}$		SF.R37	1966		52
	$5-10 \times 10^{-9}$		SF.R30	"		"
	$5-15 \times 10^{-9}$		SF.R31	1965-66		"
	10×10^{-9}		SF.R32	Aug '66		"
	$5-10 \times 10^{-9}$		SF.R26	1966		"
	$6-12 \times 10^{-9}$		SF.R19	1958-66		41, 49
	9×10^{-9}		SF.R20	Sept '66		41
	$10-40 \times 10^{-9}$		SF.R21	1967-68		43
	$8-11 \times 10^{-9}$		SF.R22	1955-65		41
	$11-12 \times 10^{-9}$		SF.R23	1965-66		41, 49
	$4-31 \times 10^{-9}$		SF.R24	1955-65		"
	7×10^{-9}		SF.R25	"		"
	$10-20 \times 10^{-9}$		SF.R26	1967-68		43
	5×10^{-9}		SF.R27	Sept '55		41
	$5-6 \times 10^{-9}$		SF.R28	Sept '66		49
	$3-11 \times 10^{-9}$		SF.R29	1955-66		41, 49
	$10-30 \times 10^{-9}$		SF.R30	1967-68		43
	$2-26 \times 10^{-9}$		SF.R31	1955-67		41, 43, 49
	$6-9 \times 10^{-9}$		SF.R32	1958-66		"
	10×10^{-9}		SF.R33	1966-68		43
	13×10^{-9}		SF.R34	Sept '66		49
	$3-4 \times 10^{-9}$		SF.R36	1955-66		41, 49
	$5-12 \times 10^{-9}$		SF.R37	1966-67		43, 49
	8×10^{-9}		SF.R38	1958-65		41
	$7-12 \times 10^{-9}$		SF.R41	1955-66		41, 49
	$3-5 \times 10^{-9}$		SF.R42	"		"
	5×10^{-9}		SF.R10	Sept '66		49
	5×10^{-9}		SF.L3	"		"
	$<10-230 \times 10^{-9}$	WPRL	E.D3		glc	51
	ND	"	E.D4		"	"
	ND	"	SF.R4	1966	"	"
	up to 0.32×10^{-6}	"	E.D3b	Mar '66	"	"
	$\sim 0.2 \times 10^{-6}$	"	E.D1	1966	"	"
	0.2×10^{-6}	"	E.D2	"	"	"
	0.05×10^{-6}	"	E.D3b	"	"	"
	200×10^{-6}	"	S.SS	"	"	"
	$\sim 180 \times 10^{-6}$	"	S.H	"	"	"
	$8-108 \times 10^{-9}$	"	SF.R47	1966	"	"
	$<8-171 \times 10^{-9}$	"	SF.R48	"	"	"
	$<8-158 \times 10^{-9}$	"	SF.R49	"	"	"
	63×10^{-9}	"	SF.R48	Feb. '68	"	"
	70×10^{-9}	"	SF.R49	"	"	"
	up to 5×10^{-9}	"	SF.R50	1968	"	"
	"	"	SF.R51	"	"	"
	"	"	SF.R52	"	"	"
	ND	"	SF.R53	"	"	"
	up to 5×10^{-9}	"	SF.R54	"	"	"
	ND	"	SF.R55	"	"	"
	$.01-.03 \times 10^{-6}$		E.D3		"	54
	$.06-.08 \times 10^{-6}$		E.D3/I6		"	"
	$.03-.5 \times 10^{-6}$		E.D3/I6,25		"	"

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Time of sampling	Analysis and/or Estimation	
DDT (continued)						
	$10-110 \times 10^{-9}$		SF.R37	1966-68		43, 49, 52
	27×10^{-9}		SF.R38	Sept '64		45
	38×10^{-9}		SF.R41	Sept '66		49
	10×10^{-9}		SF.R42	"		"
	26×10^{-9}		SF.L3	"		"
	$4.2-4.7 \times 10^{-9}$	RVA	SF.L7	Aug '73	glo	
	30×10^{-3}	"	S.P.L7	June '73	"	
	$0.2-0.4 \times 10^{-3}$	"	S.A.L7	1973	"	
	$0.4-1.4 \times 10^{-3}$	"	S.WP.L7	"	"	
	$3.9-7.3 \times 10^{-3}$	"	PC	"		
	$1.4-10.7 \times 10^{-3}$	"	C	"		
	$0.9-11.6 \times 10^{-3}$	"	P & B	"		
	$8-197 \times 10^{-3}$	"	F	"		
	$5-800 \times 10^{-9}$	WPRL	E.D3		glo	51
	260×10^{-9}	"	E.D4		"	"
	ND	"	SF.R4	1966	"	"
	up to 0.77×10^{-6}	"	E.D3b	Mar '66	"	"
	$\sim 6 \times 10^{-6}$	"	E.D1	1966	"	"
	0.5×10^{-6}	"	E.D2	"	"	"
	0.1×10^{-6}	"	E.D3b	"	"	"
	110×10^{-6}	"	S.SS	"	"	"
	"	"	S.H	"	"	"
	$8-50 \times 10^{-9}$	"	SF.R47	"	"	"
	$<8-167 \times 10^{-9}$	"	SF.R48	"	"	"
	$<8-217 \times 10^{-9}$	"	SF.R49	"	"	"
	133×10^{-9}	"	SF.R48	Feb '68	"	"
	251×10^{-9}	"	SF.R49	"	"	"
	up to 10×10^{-9}	"	SF.R50	1968	"	"
	up to 5×10^{-9}	"	SF.R51	"	"	"
	"	"	SF.R52	"	"	"
	ND	"	SF.R53	"	"	"
	up to 5×10^{-9}	"	SF.R54	"	"	"
	"	"	SF.R55	"	"	"
	$.04-.08 \times 10^{-6}$	"	E.D3		"	54
	$.02-.1 \times 10^{-6}$	"	E.D3/I6		"	"
	$.01-.5 \times 10^{-6}$	"	E.D3/I6,25		"	"

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Dibromobenzene		EPA	T1			36
2,3-Dibromo-1-propanol	0.5×10^{-3}	EPA	E.I		glc ms	2
Dibromopropene isomer		EPA	E.I		glc ms	2
		"	SF.R11		"	20
Dicamba	1×10^{-3}	WRA	E.I4	1973	glc ms	
Dichloroanisole		KK	SF.R5	1970/71	glc ms	4
Dichlorobenzene		EPA	T1			36
		UZ	SF.L1 & T3		glc ms	10,22
		CEN	SF.R	1972	"	
o-Dichlorobenzene		KK	SF.R5	1970/71	glc ms	4
		EAWAG	SF.L	1972	"	
			SF.R5		"	23
	$3.9\text{-}16.7 \times 10^{-6}$		SF.R17	1972/73	"	29
m-Dichlorobenzene		KK	SF.R5	1970/71	glc ms	4
	8×10^{-6}	CEN	SF.R	Oct '71	"	
		EAWAG	SF.L	1972	"	
			SF.R5		"	23
p-Dichlorobenzene	$1.4\text{-}4.0 \times 10^{-6}$		SF.R17	1972/73	glc ms	29
	7×10^{-6}	CEN	SF.R	Oct '71	"	
		EAWAG	SF.L	1972	"	
		EPA	T			24
			SF.R5		glc ms	23
Dichlorobiphenyls		KK	SF.R5	1970/71	glc ms	4
			"		"	23
Dichlorodimethoxybenzene		KK	SF.R5	1970/71	glc ms	4
1,2-Dichloroethane		EPA	T1			36
	0.7×10^{-6}	CEN	SF.R	1972/72	glc ms	
	61×10^{-3}		T2		"	9

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Dichloroethyl ether		EPA	T1			36
Di-(chloroisopropyl)ether		KK	SF.R5	1970/71	glc ms	4
Dichlorophenols	80×10^{-6}	WRA	LF	Jun '72	glc ms	
2,4-Dichlorophenol	6.6×10^{-6}		SF.R36		glc	58
Dichloroprop	0.5×10^{-3}	WRA	E.I4	1973	glc ms	
Dichloropropene		EPA	SF.R/E.I5		glc ms	2
Dichlorotoluene		KK	SF.R5	1970/71	glc ms	4
2,4-Dichlorophenoxyacetic acid						
	up to $.21 \times 10^{-3}$	WRA	SF/LR.RU	1971/72	glc	
	$70-120 \times 10^{-9}$		SF.R29	1967/68		43
	$20-70 \times 10^{-9}$		SF.R27	1968		"
	$30-240 \times 10^{-9}$		SF.R37	1967/68		"
	$10-110 \times 10^{-9}$		SF.R30	"		"
	50×10^{-9}		SF.R21	Apr '68		"
	30×10^{-9}		SF.R32	May '68		"
	$50-330 \times 10^{-9}$		SF.R26	1967/68		"
	$50-140 \times 10^{-9}$		SF.R20	"		"
	$20-30 \times 10^{-9}$		SF.R33	"		"
Dieldrin						
	$3-59 \times 10^{-9}$	WRA	SF.R3	1965/66	glc	
	up to 30×10^{-9}	"	SF.RL7	"	"	
	ND	"	SB	"	"	
	up to 3×10^{-6}	"	SF/E.I6	"	"	
	40×10^{-9}	WPRL	E.D4	1969	"	
		EPA	T/E.I6,25		glc ms	48
	3×10^{-6}		RF			40
	$22-122 \times 10^{-9}$		SF.R19	1958-64		49
	$2-24 \times 10^{-9}$		"	1964-66		41,45,49
	$3-5 \times 10^{-9}$		SF.R20	"		45,49,52
	10×10^{-9}		"	June '67		43
	$2-15 \times 10^{-9}$		SF.R21	1964-66		45,52
	$10-23 \times 10^{-9}$		"	1966/67		43,49
	$3-12 \times 10^{-9}$		SF.R22	1964/66		41,45,49
	5×10^{-9}		SF.R23	Sept '65		41
	$16-56 \times 10^{-9}$		SF.R24	1958-64		45,49
	$22-110 \times 10^{-9}$		"	1965-66		49
	$16-68 \times 10^{-9}$		SF.R25	1958-68		"

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Dieldrin (contd)						
	$5-40 \times 10^{-9}$		SF.R26	1966–68		43,52
	8×10^{-9}		SF.R27	Sept '64		45
	$3-8 \times 10^{-9}$		SF.R28	1964–66		45,49
	$4-23 \times 10^{-9}$		SF.R29	"		41,45,52
	$4-70 \times 10^{-9}$		"	1966–68		43,49
	$4-15 \times 10^{-9}$		SF.R30	1966		49,52
	$5-32 \times 10^{-9}$		SF.R31	1964		45
	$3-29 \times 10^{-9}$		"	1965		41,49,52
	4×10^{-9}		SF.R32	1964		45
	$3-11 \times 10^{-9}$		"	1965/66		41,49,52
	$2-15 \times 10^{-9}$		SF.R33	1964		45
	$3-10 \times 10^{-9}$		"	1965/66		41,43,52
	4×10^{-9}		SF.R35	Sept '66		49
	$13-55 \times 10^{-9}$		SF.R36	1958–65		45,49
	$2-7 \times 10^{-9}$		"	1965/66		41,49
	$1-10 \times 10^{-9}$		SF.R37	1964–66		45,49,52
	10×10^{-9}		"	Apr '68		43
	$16-24 \times 10^{-9}$		SF.R38	1958–65		41,45,49
	4×10^{-9}		"	Sept '66		49
	$3-16 \times 10^{-9}$		SF.R41	Sept '65		41
	$2-4 \times 10^{-9}$		SF.R42	1964–66		41,45,49
	$15-45 \times 10^{-9}$		SF.R10	1965/66		49
	$3-7 \times 10^{-9}$		SF.L6	1964/65		41,45

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Dieldrin (cont)						
	7-1900 x 10^{-9}	WPRL	E.D3		glc	51
	40 x 10^{-9}	"	E.D4		"	"
	ND	"	SF.R4	1966	"	"
	up to 250 x 10^{-9}	"	E.D3b	Mar '66	"	"
	~0.7 x 10^{-6}	"	E.D1	1966	"	"
	~0.4 x 10^{-6}	"	E.D2	"	"	"
	~0.2 x 10^{-6}	"	E.D3b	"	"	"
	~140 x 10^{-6}	"	S.SS	"	"	"
	~210 x 10^{-6}	"	S.H	"	"	"
	< 3-34 x 10^{-9}	"	SF.R47	"	"	"
	31-286 x 10^{-9}	"	SF.R48	"	"	"
	0.10-0.63 x 10^{-6}	"	SF.R49	"	"	"
	0.197 x 10^{-6}	"	SF.R48	Feb '68	"	"
	0.65 x 10^{-6}	"	SF.R49		"	"
	< 5-40 x 10^{-9}	"	SF.R50	1968	"	"
	< 5-8 x 10^{-9}	"	SF.R51	"	"	"
	up to 5 x 10^{-9}	"	SF.R52	"	"	"
	< 5-10 x 10^{-9}	"	SF.R53	"	"	"
	up to 5 x 10^{-9}	"	SF.R54	"	"	"
	up to 12.9 x 10^{-9}	"	SF.R55	"	"	"
	0.1-0.3 x 10^{-6}		E.D3		"	54
	1-2 x 10^{-6}		E.D3/I6		"	"
	4-10 x 10^{-6}		E.D3/I6,25		"	"
Endosulfan (thiodan)						
			SF.R5			59
Endrin & isomers						
	4-214 x 10^{-9}		SF.R19	1958-65		41,45,49
	3-14 x 10^{-9}		"	Sept '66		49
	12 x 10^{-9}		SF.R21	Sept '64		45
	7-23 x 10^{-9}		SF.R22	1964-65		41,45
	22-31 x 10^{-9}		SF.R24	Sept '66		49
	21 x 10^{-9}		SF.R27	Sept '64		45
	69 x 10^{-9}		SF.R28	Sept '66		49
	5-9 x 10^{-9}		SF.R29	1964-66		45,49
	3-67 x 10^{-9}		SF.R31	1964/65		41,45
	5 x 10^{-9}		SF.R32	Sept '66		49
	9-19 x 10^{-9}		SF.R33	1964-66		45,49
	3 x 10^{-9}		SF.R35	Sept '66		49
	4-14 x 10^{-9}		SF.R37	1964-66		45,49
	0.94 x 10^{-6}		SF.R41	Sept '64		45
	6 x 10^{-9}		SF.L6	"		"
	22 x 10^{-9}		SF.L3	Sept '66		49

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Fenac						
	8.82×10^{3}		SF.LR1			35
Heptachlor						
	48×10^{-9}		SF.R19	Sept '65		41
	$5\text{-}40 \times 10^{-9}$		SF.R20	1966/67		43,52,60
	$5\text{-}10 \times 10^{-9}$		SF.R21	1965-67		"
	115×10^{-9}		SF.R22	Sept '65		41
	$5\text{-}10 \times 10^{-9}$		SF.R26	1966/67		43,52,60
	$4\text{-}20 \times 10^{-9}$		SF.R29	1965/66		41,49,60
	$10\text{-}40 \times 10^{-9}$		"	1967		43
	$15\text{-}20 \times 10^{-9}$		SF.R30	1966/67		43,52,60
	$5\text{-}35 \times 10^{-9}$		SF.R31	1965/66		41,52,60
	$10\text{-}20 \times 10^{-9}$		SF.R31	1967		43
	20×10^{-9}		SF.R32	1965-67		41,43
	$10\text{-}20 \times 10^{-9}$		SF.R33	1967		43
	24×10^{-9}		SF.R36	Sept '65		41
	$5\text{-}20 \times 10^{-9}$		SF.R37	1965-67		43,52,60
Heptachlor epoxide						
	$1\text{-}67 \times 10^{-9}$		SF.R19	1958-65		41
	$2\text{-}7 \times 10^{-9}$		SF.R19	Sept '66		49
	5×10^{-9}		SF.R20	Jun '66		52
	5×10^{-9}		SF.R21	1965/66		"
	20×10^{-9}		SF.R22	Sept '65		41
	4×10^{-9}		SF.R23	Sept '66		49
	6×10^{-9}		SF.R24	"		"
	$2\text{-}5 \times 10^{-9}$		SF.R26	1965/66		41,52
	40×10^{-9}		SF.R26	Jun '67		43
	7×10^{-9}		SF.R28	Sept '66		49
	$2\text{-}20 \times 10^{-9}$		SF.R29	1958-67		41,43,52
	5×10^{-9}		SF.R30	1966		52
	$5\text{-}10 \times 10^{-9}$		SF.R31	1965-66		"
	$5\text{-}19 \times 10^{-9}$		SF.R32	"		41,52
	5×10^{-9}		SF.R33	Jan '66		52
	$2\text{-}20 \times 10^{-9}$		SF.R36	Sept '65		41
	5×10^{-9}		SF.R37	1965-66		52
	3×10^{-9}		SF.R41	Sept '65		41
	10×10^{-9}		SF.L3	Sept '66		49
	40×10^{-9}		RF.			40

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Heptachloronorbornene						
			SF.R19/I10			61
Hexachlor epoxide						
		EPA	EI10		glc ms	48
Hexachlorobenzene						
		EPA	T1			36
		"	T/SF.R36		ms	47
		"	E.I23			2
		KK	SF.R5	1970/71	glc ms	4
	0.4-3 x 10^{-6}		SF.L5			56
Hexachlorobutadiene						
		KK	SF.R5	1970/71	glc ms	4
		EPA	E.I10		"	41
1,3-Hexachlorobutadiene						
			SF.R5		glc ms	23
Hexachlorocyclohexane						
		KK	SF.R5	1970/71	glc ms	4
Hexachlorocyclopentadiene						
		EPA	E.I10		glc ms	48
Hexachloroethane						
		CEN	SF.R	1972	glc ms	
		EPA	SF.R19/I5		"	2
		"	T/SF.R36		ms	47
Hexachloronorbornadiene & isomers						
			SF.R19/I10			61
		EPA	E.I10		glc ms	48
Isodrin & isomers						
			SF.R19/I10			61

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
MCPA, (4-chloro-2-methylphenoxyacetic acid)						
	up to 0.3×10^{-6}	WRA	SF.R2	1973	glc ms	
MCPB, (4-(4-chloro-2-methylphenoxy)butyric acid)						
	$0.05\text{-}0.15 \times 10^{-6}$	WRA	SF.R2	1973	glc ms	
Mecoprop, (2-(4-chloro-2-methylphenoxy)propionic acid)						
	$0.04\text{-}1.3 \times 10^{-6}$	WRA	SF.R2	1973	glc ms	
Methyl chloride						
		EPA	T1			36
		CEN	SF.R	1972	glc ms	
Methylchlorophenylsulphone						
		KK	SF.R5	1970/71	glc ms	4
Methyldichlorodiphenylmethane						
		KK	SF.R5	1970/71	glc ms	4
Methylmercuric chloride						
	9-85(asHg)		F/R18/I23	1960-63		62
	14.4		SF.R18/I23	1965		63
Nonachlor						
		EPA	E.I10		glc ms	48
Octachlorodibenzoparadioxane						
		CEN			glc ms	53
PCB's						
		EPA	E.I10			
	$<0.05 \times 10^{-6}$	WPRL	E.D3b	Jan '72	hplc	
		KK	F.R5	1970/71	glc ms	4
	0.2×10^{-6}	EPA	E.I18		"	2
		"	SD.R11		"	20
		"	SF.R36		"	"
	0.2×10^{-3}	WPRL	LF	1973	glc	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
PCB's (cont)						
	$29\text{-}48 \times 10^{-9}$	RVA	SF.L7	Aug '73	glc	
	0.22×10^{-3}	"	S.P.L7	Jun '73	"	
	$0.3\text{-}3.6 \times 10^{-3}$	"	S.A.L7	1973	"	
	$1.4\text{-}2.5 \times 10^{-3}$	"	S.WP.L7	"	"	
	$28\text{-}48.8 \times 10^{-3}$	"	PC	"	"	
	$11\text{-}101 \times 10^{-3}$	"	C	"	"	
	$5\text{-}46 \times 10^{-3}$	"	P&B	"	"	
	$41\text{-}342 \times 10^{-3}$	"	F	"	"	
	0.02-5.6	WPRL	S.SS	1970/71	"	
	$<0.03\text{-}2.17 \times 10^{-6}$		SF.R56	Aug '69	"	64
	$0.04\text{-}0.25 \times 10^{-6}$		E.D3	Mar '70	"	"
	2.50×10^{-6}		E.I23	"	"	"
	$<0.05 \times 10^{-6}$		E.D3b/I15, 26,27,33	1971	lc glc	65
	$0.12\text{-}0.22 \times 10^{-6}$		E.D2/I23, 32,33		"	"
	$0.07\text{-}0.23 \times 10^{-6}$		E.D3a/I28, 31,34		"	"
	$0.28\text{-}1.1 \times 10^{-6}$		E.D3b/I15, 28,31,34		"	"
	$0.60\text{-}0.83 \times 10^{-6}$		E.D3a/I23, 28,33,34		"	"
	$0.08\text{-}0.14 \times 10^{-6}$		E.D3a/I15, 27,29,30		"	"
	$2.2\text{-}2.8 \times 10^{-6}$		E.D3b/I16, 31,34		"	"
	$0.17\text{-}0.34 \times 10^{-6}$		E.D3b		"	"
	$0.06\text{-}0.14 \times 10^{-6}$		E.D3a/I23, 28,34		"	"
	$0.07\text{-}0.15 \times 10^{-6}$		E.D3a/I15, 28,34		"	"
	$32\text{-}42 \times 10^{-6}$		E.D3b/I5, 29,31,32		"	"
	9×10^{-6}		SF.R/I5		glc ms	66
	0.2-3.0		S.F		"	"
Pentachloroanisole						
		KK	SF.R5	1970/71	glc ms	4

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Tetrachloroethylene						
		EPA	T1			36
	$>.5 \times 10^{-6}$	CEN	SF.R	1971/72	glc ms	
		KK	SF.R5	1970/71	"	4
			T2		"	9
		EPA	T/SF.R36		"	47
Tetrachloromethane						
	$<0.1 \times 10^{-3}$		T2		glc ms	9
		UZ	SF.L1		"	10
Tetrachlorophenol						
		CEN	SF.R	1972	glc ms	
		"			"	53
		EPA	E.I9		"	2
Tetrachloroquinone						
		CEN	SF.R	1972	glc ms	53
Tetrachlorotoluene						
		KK	SF.R5	1970/71	"	4
Toxaphene						
	0.4×10^{-6}		T/LR.1			50
	0.75×10^{-6}		SF.R44			42
	$1-28 \times 10^{-6}$		SF.L8			67
	4.2-15.2		S.F.L8			"
	0.4-18.3		S.WP.L8			"
	0.04-0.13		S.SD.L8			"
Trichloroanisole						
		KK	SF.R5	1970/71	glc ms	4
2,4,5-Trichloroanisole						
			SF.R5		glc ms	23
Trichlorobenzene isomers						
	$0.1-0.5 \times 10^{-6}$		SF.R25/I21	1972/73	glc ms	68
	20×10^{-6}	CEN	SF.R	1971/72	"	
		EPA	SF.R/I14		"	2
		UZ	SF.L1 & T3		"	22
		"	SF.L1		"	10
			SF.R5		"	23

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
1,2,3-Trichlorobenzene		EAWAG	SF.L	1972		
		KK	SF.R5	1970/71	glc ms	4
1,2,4-Trichlorobenzene		EAWAG	SF.L	1972		
		KK	SF.R5	1970/71	glc ms	4
1,3,5-Trichlorobenzene		KK	SF.R5	1970/71	glc ms	4
2,3,6-Trichlorobenzoic acid	5×10^{-3}	WRA	E.I3b	1973	glc ms	
	1×10^{-3}	"	SF.R7/I10	"	"	
	$0.2\text{-}6 \times 10^{-6}$	"	SF.R7	"	"	
	1×10^{-6}	"	SF.R2/I10	"	"	
Trichlorocyclopentene isomers		EPA	E.I10		glc ms	48
1,1,2-Trichloroethane		EPA	T1			36
	5.4×10^{-3}	"	E.I23		glc ms	2
Trichloroethylene		CEN	SF.R	1972	glc ms	
		UZ	SF.L1		"	10
Trichloroguaiacol		EPA	E.I5		"	2
Trichloromethylene			T2		"	9
Trichlorophenol	40×10^{-6}	WRA	LF	Jun'72		
		CEN	SF.R	1972	glc ms	
		"			"	53

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Trichlorotoluene		KK	SF.R5	1970/71	glc ms	4
Trichloroxylene		KK	SF.R5	1970/71	glc ms	4
2,4,5-Trichlorophenoxyacetic acid						
	2-160 x 10^{-6}	WRA	SF.RU/LR	1968	glc	
	0.04 x 10^{-3}	EPA	RF			44
	10-40 x 10^{-9}		SF.R37	1967/68		43
	10-60 x 10^{-9}		SF.R30	"		"
	10 x 10^{-9}		SF.R21	Apr '68		"
	10-30 x 10^{-9}		SF.R32	1967/68		"
	10 x 10^{-9}		SF.R26	Sept '67		"
	0.4-0.8 x 10^{-6}		LR.1			69

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ORGANO METALLICS						
Copper (II) acetate		EPA	ED1		ms hplc	
Diphenylmercury		EPA	SF.L	1968	glc ms	20
Methylmercuric chloride	5		S.F/SF.L14 SF.L15			116 "
Methyl mercury	0.08 (as Hg)	RVA	S.F/SF.L7	1973	glc	
Phenylmercuric chloride		EPA	SF.L	1968	glc ms	20

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
MERCAPTANS AND MISC. SULPHUR COMPOUNDS						
2-Acetylthiophene		EPA "	E.I5 SF.R19/I5		glc ms "	2 "
Alkyl benzothiophenes	$<15 \times 10^{-6}$	ISU	SB1		ms	1
Benzothiazole		 EPA	SF.R17 LF		glc ms "	29 20
2-Benzothiazole		EPA "	SF.R/I14 E.I17		glc ms "	2 24
Benzothiophene	0.37×10^{-6}	 ISU	SF.R17 SB1		glc ms glc ms uv	29 1
n-Butyl isothiocyanate	$0.1\text{-}0.5 \times 10^{-3}$	EPA	E.I20		glc ms	2
t-Butylmercaptan	4.6×10^{-6}		SF.R36		glc	58
2,5-Diethylthiophene		EPA	E.I5		glc ms	20
2,4-Dimethyldiphenyl sulphone		EPA " "	E.I18 E.I22 SF.R11		glc ms " "	2 " 20
Dimethyl disulphide		UZ	SF.L1		glc ms	10
Dimethyl sulphone		EPA "	SF.R19/I5 E.I5		glc ms "	2 20
Dimethyl sulphoxide		EPA	E.I5		glc ms	2
Dimethyl trisulphide		UZ	SF.L1		glc ms	10
Diphenylene sulphide	0.1×10^{-3}	EPA	E.I9		glc ms	2
Diphenyl sulphone		KK	SF.R5	1970/71	glc ms	4

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
p-Dithiane	0.12×10^{-3}	EPA	E.I16		glc ms	2
Ethyl isothiocyanate	$<1.5 \times 10^{-3}$	EPA	E.I20		glc ms	2
2-Formylthiophene		EPA	E.I5		glc ms	2
Hydrogen sulphide		CEN	SF.R	Jun '72	glc ms	
p-Hydroxythiophenol		EPA	E.I5		glc ms	2
Lauryl sulphate	10×10^{-6}	UNS	SF.R1	Sept'72	tlc	
2-Mercaptobenzothiazole		EPA "	E.I16 E.I5		glc ms "	2 "
Methyl benzothiazolysulphone		KK	SF.R5	1970/71	glc ms	4
2-Methylthiobenzthiazole		KK	SF.R5	1970/71	glc ms	4
Methyl trisulphide		EPA	E.I5		glc ms	2
n-Octylmercaptan			E.I36		glc	58
1-Phenyl-2-thiopropane		UZ	SF.I1		glc	10
2-Propionyl thiophene		EPA	SF.R19/I5		glc ms	2
Sulphur dioxide		CEN	SF.R	Jun '72	glc ms	
2,2 -Thiodiethanol	2×10^{-3}	EPA	E.I16		glc ms	2

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
PHENOLS AND QUINONES						
Alkyl quinolines	0.05×10^{-3}	EPA	E.I9		glc ms	2
			SF.R17		"	29
Anthraquinone		KK	SF.R5	1970/71	glc ms	4
Benzoquinoline			SF.R17		glc ms	29
2-t-Butyl-4-methoxyphenol		KK	SF.R5	Nov '71	glc ms	4
2-t-Butyl-4-methylphenol		KK	SF.R5	Nov '71	glc ms	4
Catechol	0.1×10^{-3}	WPRL	LF	1973/74	glc	
	$8\text{-}3330 \times 10^{-3}$		E.I12		"	70
Cresol isomers	10×10^{-9}	UNS	SF.R1	Aug '72	tlc	
	1.3×10^{-6}		SF.R36		glc	58
o-Cresol	0.12×10^{-3}	EPA	E.I8		glc ms	20
		"	E.I12		"	48
	1.4×10^{-3}	"	E.I9		"	2
	0.12×10^{-3}	"	E.I8		"	"
		"	LF		"	20
	0.3×10^{-3}	WPRL	"		glc	
	0.100-0.386		E.I12		"	70
m-Cresol		EPA	E.I12		glc ms	48
			SF.R36		pc	71
	2.5×10^{-3}	EPA	E.I9		glc ms	2
	0.3×10^{-3}	WPRL	LF		glc	
	0.156-0.735		E.I12		"	70
p-Cresol		EPA	E.D1		hplc	
	0.05×10^{-3}	"	E.I5		glc ms	2
		"	LF		"	20
	1.0×10^{-3}	WPRL	"		glc	
		CEN	SF.R	1972	glc ms	
	0.109 - 0.485		E.I12		glc	70

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
2,6-Di-t-butyl-p-benzoquinone	0.01×10^{-3}	EPA	E.I35		glc ms	2
2,5-Di-t-butyl cresol		KK	SF.R5	Nov '71	glc ms	4
		EPA	SF.R11		"	20
Di-t-butyl-p-cresol		CEN	SF.R	Jun '72	glc ms	
1,2-Bis-(3,5-di-t-butyl-4-hydroxyphenyl)ethane		KK	SF.R5	Nov '71	glc ms	4
Bis(3,5-di-t-butyl-4-hydroxyphenyl)methane		KK	SF.R5	Nov '71	glc ms	4
2,5-Dimethylphenol		EPA	E.I12		glc ms	48
3,4-Dimethylphenol		EPA	E.I12		glc ms	48
3,5-Dimethylphenol		EPA	E.I12		glc ms	48
			SF.R36		pc	71
Dimethyl quinoline isomers	0.1×10^{-3}	EPA	E.I9		glc ms	2
Dimethyl-p-quinone		EPA	E.I12		glc ms	48
o-Ethylphenol	$1\text{-}25 \times 10^{-3}$		E.I12		glc	70
m-Ethylphenol		EPA	E.I5		glc ms	2
	$11\text{-}71 \times 10^{-3}$		E.I12		glc	70
p-Ethylphenol	$2\text{-}112 \times 10^{-3}$		E.I12		glc	70
Guaiacol	0.43×10^{-3}	EPA	E.I5		glc ms	2,20
		"	SF.R19/I5		"	2
		"	T1			36
			SF.R36		pc	71
			SF.R5		"	72
		CEN	SF.R	1972	glc ms	53
3-Hydroxybenzoic acid	$\sim 40 \times 10^{-6}$	EPA	E.D1		hplc	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
4-Hydroxybenzoic acid		EPA	E.D1		hplc	
Hydroxybiphenyl isomer		EPA	E.I10		glc ms	2
4-Hydroxyphenylacetic acid	190×10^{-6}	EPA	E.D1		hplc	
3-Hydroxyphenylhydracrylic acid	10×10^{-6}	EPA	E.D1		hplc	
3-Hydroxyphenylpropionic acid	$\sim 20 \times 10^{-6}$	EPA	E.D1		hplc	
3-Methylcatechol	up to 0.900		E.I12		glc	70
4-Methylcatechol	up to 1.200		E.I12		glc	70
Methyl quinoline isomers	0.5×10^{-3}	EPA	E.I10		glc ms	2
Naphthols		CEN	SF.R	Jun '72	glc ms	
			SF.R5		pc	72
	1×10^{-9}	UNS	SF.R1	Aug '72	tlc	
1-Naphthol		EPA	E.I12		glc ms	48
2-Naphthol			SF.R36		glc	58
			SF.R		tlc	73
Nonylphenol		EPA	SF.R/I14,25		glc ms	48
Octylphenol		EPA	SF.R/I14,25		glc ms	48
Phenol	0.2×10^{-3}	EPA	E.I8		glc ms	20
			SF.R5		pc	72
			SF.R36		"	71
	6.0×10^{-3}	WPRL	LF	1973/74	glc	
		CEN	SF.R	1972	glc ms	53
	$0.01\text{-}1.0 \times 10^{-6}$	UNS	SF.R1	Aug '72	tlc	
		EPA	LF		glc ms	20
		"	E.I12		"	48
		"	E.D1		"	2

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Phenol (contd)	0.2×10^{-3}	EPA	E.I8		glc ms	2
	0.66×10^{-3}	"	E.I9		"	"
	0.06×10^{-3}	"	E.I23		"	"
		"	E.I5		"	"
	0.825-2.29		E.I12		glc	70
Phenyl phenol isomers		CEN	SF.R	Jun '72	glc ms	
o-Phenyl phenol		EPA	SF.R/I14		glc ms	2
Phloroglucinol			SF.R5		pc	72
			SF.R		tlc	73
Polyhydroxyphenols	1×10^{-9}	UNS	SF.R1	Aug '72	tlc	
i-Propyl-p-phenols		KK	SF.R5	1970/71	glc ms	4
4-n-Propylphenol		EPA	E.I5		glc ms	2
Pyrocatechol			SF.R5		pc	72
			SF.R		tlc	73
Quinoline	1.5×10^{-3}	EPA	E.I9		glc ms	2
			SF.R17		"	29
Resorcinol	up to 150×10^{-3}		E.I12		glc	70
			SF.R5		pc	72
Salicylic acid		EPA	E.D1		glc ms	
Saligenin			SF.R5		pc	72
Thymol			SF.R5		pc	72
Vanillin	0.02	EPA	E.I5		glc ms	2
2,3-Xylenol	$5-117 \times 10^{-3}$		E.I12		glc	70

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
2,4-Xylenol	0.1×10^{-3}	WPRL	LF		glc	
2,4- & 3,5-Xylenol	$41-242 \times 10^{-3}$		E.I12		glc	70
2,5-Xylenol	0.82×10^{-3} $10-57 \times 10^{-3}$	EPA	E.I9 E.I12		glc ms glc	2 70
2,6-Xylenol	0.3×10^{-3} $4-138 \times 10^{-3}$	WPRL	LF E.I12		glc "	 70
3,4-Xylenol	0.5×10^{-3} $5-60 \times 10^{-3}$	EPA	E.I9 E.I12		glc ms glc	2 70
3,5-Xylenol	1.5×10^{-3} 0.3×10^{-3}	EPA WPRL	E.I9 LF		glc ms glc	2

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
HETEROCYCLICS						
Alkyl pyridines			SF.R17		glc ms	29
Benzofuran		KK	SF.R5	1970/71	glc ms	4
Caffeine	~10 x 10^{-6}	EPA	E.D1		hplc uv	74
Carbazole	0.3 x 10^{-3}	EPA	E.I9		glc ms	2
			SF.R17		"	29
Dibenzofuran	0.12 x 10^{-3}	EPA	E.I9		glc ms	2
		"	E.I18		"	"
		"	SF.R11		"	20
Dibenzofuran isomer		EPA	E.I8		glc ms	2
3,3-Dimethyl oxindole		KK	SF.R5	1970/71	glc ms	4
Dimethyl pyridine isomer	0.1-0.2 x 10^{-3}	EPA	E.I9		glc ms	2
1,7-Dimethylxanthine		EPA	E.D1		hplc uv	74
Indican	~2 x 10^{-6}	EPA	E.D1		sf glc hplc	
Indole			SF.R5		pc	72
Indole acids			SF.R5		pc	72
Inosine		EPA	E.D1		hplc uv glc ms	74
2,5-Lutidine			SF.R5		glc ms	23
2-Methyl-4-ethyldioxolane		EPA	E.I26		glc ms	2
2-Methyl-5-ethylpyridine	6.2 x 10^{-6}		SF.R10		glc ir	25
3-Methylindole			SF.R5		pc	72
1-Methylinosine		EPA	ED.1		hplc	
Methylpropylpyridine		KK	SF.R5	Nov '71	glc ms	4
1-Methylxanthine	17 x 10^{-6}	EPA	E.D1		hplc uv	74
3-Methylxanthine		EPA	E.D1		hplc uv	74

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
7-Methylxanthine	~90 x 10^{-6}	EPA	E.D1		hplc uv	74
Pentylpyridine			SF.R5		glc ms	23
β-Picolylpropylether		KK	SF.R5	Nov '71	glc ms	4
Pyridine	5-17.4 x 10^{-3} 15.0-23.4 x 10^{-3}		E.I23 E.I12			75 "
Theobromine		EPA	E.D1		hplc	74
Trimethylindole			SF.R17		glc ms	29
2,4,6-Trimethylpyridine	0.3 x 10^{-3}	EPA	E.I9		glc ms	2
Thymine	~7 x 10^{-3}	EPA	E.D1		hplc glc	
Uracil	13 x 10^{-6}	EPA	E.D1		hplc	74
Uric acid	20 x 10^{-6} 10 x 10^{-6}	EPA	E.D1 E.D3		uv glc ms hplc uv glc	76
Xanthine	70 x 10^{-6}	EPA	E.D1		hplc ms	74

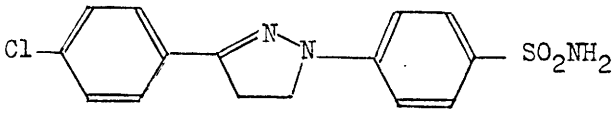
Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
SURFACTANTS						
Alkyl benzene sulphonate, (ABS)						
	$3.5–100 \times 10^{-3}$		SF.R57			77
	0.5×10^{-3}		SF.R58			78
	10×10^{-3}		SB4			79
	up to 0.14×10^{-3}		SF.R59,T7	up to 1961		"
	up to 0.6×10^{-3}		SB5			83
	$0.01–3 \times 10^{-3}$		SF.R60			84
	0.5×10^{-3}		"			85
	$1.0–11 \times 10^{-3}$		SF.R61			86
	$0.1 \times 12 \times 10^{-3}$		SF.R36			"
	$4–45 \times 10^{-3}$		E.D1 (USA)			"
	$14–17 \times 10^{-3}$	WPRL	E.D1		c	80
	13.1×10^{-3}	"	E.D2		"	"
	1.45×10^{-3}	"	E.D3b		"	"
	12.0×10^{-3}		E.D3		"	81
	$1.5–12.5 \times 10^{-3}$		"		"	82
	$3.08–3.5 \times 10^{-3}$		E.D1 (Fr.)		"	32
	$1–15 \times 10^{-3}$		E.D1 (USA)			"
	$0.7–4.5 \times 10^{-3}$		SF.R62			"
	0.125×10^{-3}		SF.R9			"
	0.03×10^{-3}		SF.R63			"
	up to 1.11×10^{-3}		SF.R19	1963/64		87
	$23.2–33.6 \times 10^{-3}$		E.D1 (It.)	1962		88
	5.4×10^{-3}		E.D1 (Ger)	pre. LAS		89
	$0.06–0.15 \times 10^{-3}$		SF.R36	1965		"
	$0.01–0.02 \times 10^{-3}$		SF.R59			"
	3.0×10^{-3}		E.D3 (UK)	'62(preLAS)		"
	1.3×10^{-3}		"	'65(postLAS)		"
	5.0×10^{-3}		E.D3a (USA)	up to '65		"
	0.7×10^{-3}		"	post '65		"
ABS (linear)	$<0.01 \times 10^{-3}$		SF.R60			90
	$<0.01 \times 10^{-3}$		SF.R59			91
ABS + linear alkyl sulphonates						
	$0.06–0.15 \times 10^{-3}$		SF.R36			89
	$0.01–0.02 \times 10^{-3}$		SF.R59	pre '60		"
	$0.5–1.3 \times 10^{-3}$		SF.R60	1959		"
	0.056×10^{-3}		"	1959–65		"
	0.022×10^{-3}		"	1965/66		"
	$15–34 \times 10^{-6}$		T8	1959/60		92
	$<0.5 \times 10^{-3}$		SF.R59			"

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Anionic detergents (as Manoxol OT)						
	1×10^{-3}	WPRL	E.D3b	Jan '71	c	
Dodecyl benzene sodium sulphonate						
	$.02-.10 \times 10^{-3}$	UNS	SF.R1	Sept '72	tlc	
Dodecyl bezene sulphonic acid						
	$.02-1.0 \times 10^{-3}$	UNS	SF.R1	Sept '72	tlc	
Non-ionic detergent (as Lissapol NX)						
	0.53×10^{-3}	WPRL	E.D3b	Jan '71	tlc	

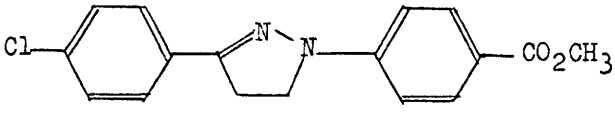
Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
OPTICAL BRIGHTENERS (see Fig. 1 for molecular structures)						
A 1 Pyrazoline type A	$<10^{-12}$	WPRL	E.D3b	Jun '72	tlc	
2 Pyrazoline type B	$<10^{-12}$	WPRL	E.D3b	Jun '72	tlc	
3 Coumarin type	0.3×10^{-9}	WPRL	E.D3b	Jun '72	tlc	
4 Thiophene type	$<10^{-12}$	WPRL	E.D3b	Jun '72	tlc	
5 Coumarin triazole type	$<10^{-12}$	WPRL	E.D3b	Jun '72	tlc	
6 Quinoline type	$<10^{-12}$	WPRL	E.D3b	Jun '72	tlc	
B 7 p-Aminostilbene type	$\sim 0.8 \times 10^{-6}$	WPRL	E.D3b	Jun '72	tlc	
8 "	$\sim 0.3 \times 10^{-6}$	WPRL	E.D3b	Jun '72	tlc	
9 "	$\sim 0.1 \times 10^{-6}$	WPRL	E.D3b	Jun '72	tlc	
p-Aminostilbene types 7, 8 and 9						
Total trans-isomer	0.8×10^{-6}	WPRL	E.D3b	Jun '72	sf	
Total cis-isomer	0.4×10^{-6}	WPRL	E.D3b	Jun '72	sf	
Total	1.2×10^{-6}	WPRL	E.D3b	Jun '72	sf	
Total fluorescing material (as Blankophor MBHH, B7 in Fig. 1)	0.12×10^{-3}	WPRL	E.D3b	Jun '72	fp	
2,5-Di-(benzoxazole-2-yl) thiophene	40×10^{-3}		S.SS		tlc ms nmr	93
	up to 2×10^{-3}		S.F(liver)		"	"

Fig. 1. Structural Formulae of Optical Brighteners

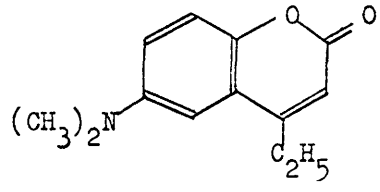
A. Textile finishers

1. 

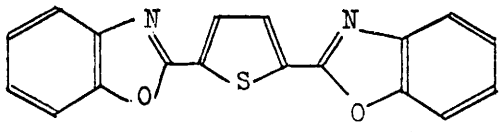
Pyrazoline type

2. 

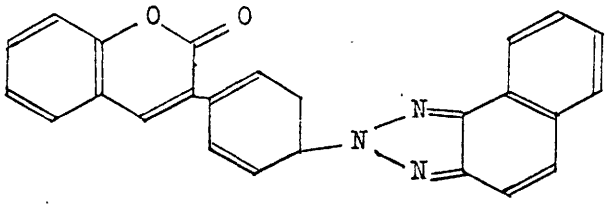
Pyrazoline type

3. 

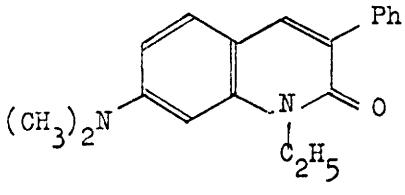
Coumarin type

4. 

2,5-di-(benzoxazol-2-yl) thiophene

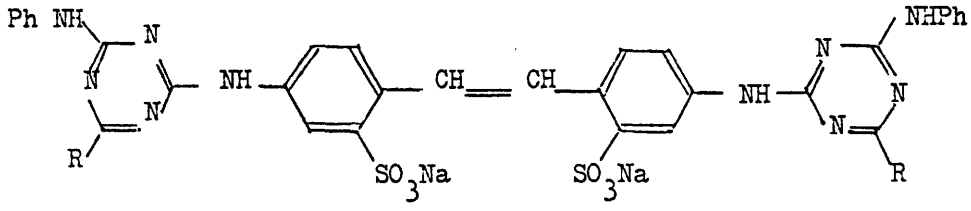
5. 

Coumarin-triazole type

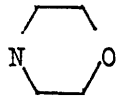
6. 

Quinoline type

B) Cotton fluorescers



p-amino stilbene type

7. Type A - Dimorpholino R = 

8. Type B - Tetra-anilino R = - NHPh

9. Type C - Di-N-methylethanolamino R = - NCH_2CH_2OH (with CH_3 on N)

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ETHERS, ALDEHYDES AND KETONES:						
Acetone		EPA CEN	T1 SF.R	 Jun'72	 glc ms	36
Acetophenone	41×10^{-6} 0.29×10^{-3}	 EPA " "	SF.R10 T1 E.I13 E.I8		glc ir glc ms "	25 36 2 "
Acetosyringone	0.14×10^{-3}	EPA	E.I5		glc ms	2
Acetovanillone	0.025×10^{-3}	EPA	E.I5		glc ms	2
Anethole isomers		EPA "	E.I5 SF.R19/I5		glc ms "	2 "
Benzaldehyde		EPA	E.I5		glc ms	2
2-Butoxyethanol		EPA	E.I		glc ms	48
t-Butyl acetophenone		UZ	SF.L1		glc ms	10
Camphor		EPA	T1,EI5		glc ms	24
α-Camphanone		EPA	T1			36
Cineol		UZ	SF.L1		glc ms	10
Cyclocitral		UZ	SF.L1		glc ms	10
Diacetone alcohol		EPA	E.I5		glc ms	48
Didecylether			SF.R5		glc ms	23
1,1-Diethoxypropane		EPA "	SF.R19 SF.R19/I5		glc ms "	2 "
Diethylether		CEN	SF.R	1972	glc ms	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
3,4-Dihydroxyacetophenone		EPA	E.I5		glc ms	20
3,4-Dimethoxyacetophenone		EPA	E.I5		glc ms	20
3,4-Dimethoxybenzaldehyde		EPA	E.I5		glc ms	20
Dimethoxy benzene		EPA	T1			36
3,4-Dimethoxyethylbenzene		EPA	E.I5		glc ms	20
3,5-Dimethoxy-4-hydroxyacetophenone		EPA	E.I5		glc ms	2
3,4-Dimethoxypropiophenone		EPA	E.I5		glc ms	20
Diphenylether			SF.R17		glc ms	29
		KK	SF.R5	1970/71	"	4
		UZ	T3 & SF.L1		"	22
		"	SF.L1		"	10
		EPA	E.I10		"	2
		"	SF.R11/I10		"	20
			SF.R15		"	23
Diphenyl-phenylether		KK	SF.R5	1970/71	glc ms	4
Ditolylether		KK	SF.R5	1970/71	glc ms	4
			SF.R17		"	23
Fenchone		EPA	E.I5		glc ms	2
Furfural		EPA	E.I5		glc ms	2
	0.002×10^{-3}	"	E.I16		"	"
Hexadieneal		EPA	E.I10		glc ms	2
p-Hydroxyacetophenone		EPA	E.I5		glc ms	2
p-Hydroxybenzaldehyde		EPA	E.I5		glc ms	2

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
4-Hydroxy-3-methoxypropiophenone		EPA	E.I5		glc ms	2
1-Idanone		EPA	LF		glc ms	20
Iso-octenone		UZ	T3		glc ms	22
4-Methoxybenzaldehyde		EPA	E.I5		glc ms	20
1-Methoxy-4-pentylbenzene		EPA	E.I5		glc ms	20
1-Methoxy-4-(1-propenyl)benzene		EPA	E.I5		glc ms	20
p-Methoxypropiophenone		EPA	E.I5		glc ms	20
Methyl 3,4-dimethoxybenzoate		EPA	E.I5		glc ms	20
Methyl 3,4-dimethoxybenzyl ether		EPA	E.I5		glc ms	2
Methyl 2-pentalone		UZ	SF.L1		glc ms	10
n-Nonyl aldehyde		EPA	SF.R19/I5		glc ms	2
Paraldehyde		UZ	T3 & SF.L1		glc ms	22
Phenyl ether	0.05×10^{-3}	EPA	T & SF.R E.I18		glc ms	38 2
Propyl phenyl ether		KK	SF.R5	1970/71	glc ms	4
Syringaldehyde	0.01×10^{-3}	EPA	E.I5		glc ms	2
3,4,5-Trimethoxyacetophenone		EPA "	E.I5 "		glc ms "	2 20
Veratraldehyde		EPA	E.I5		glc ms	2

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Veratrole		EPA	T1		glc ms	24

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ACIDS						
6,8,11,13-Abietatetraen-18-oic acid						
		EPA	E.I5		glc ms	2
13-Abietaen-18-oic acid						
		EPA	E.I5		glc ms	2
Abietic acid						
		EPA	E.I5		glc ms	2
		"	"		"	20
Acetic acid						
	25.2×10^{-6}		SF.R36		glc	94
	540×10^{-3}	WPRL	LF		"	
	$2-120 \times 10^{-6}$		SF.L5		lc	95
			SF.R19,36		pc lc	96
Adipic acid						
	3.7×10^{-3}	EPA	E.I18		glc ms	2
			SF.R59		glc	97
Anteisomargaric acid						
		EPA	E.I5		glc ms	2
		"	E.D1		glc	
		"	E.D3a		"	
Anteisopentadecanoic acid						
		EPA	E.I5		glc ms	2
		"	E.D1		glc	
Arachidonic acid						
		EPA	E.I5		glc ms	2
Benzoic acid			SF.R36		glc	58
		EPA	E.D1		hplc glc ms	
Butyric acid						
	0.18×10^{-6}		SF.R36			94
			SF.R59		glc	97
		EPA	E.D1		"	
i-Butyric acid						
	27×10^{-3}	WPRL	LF		glc	
	$0.2-1.3 \times 10^{-6}$		SF.R36		"	94
		EPA	E.D1		"	
n-Butyric acid						
	110×10^{-3}	WPRL	LF		glc	
	up to 7.5×10^{-6}		SF.L5		lc	95
	$0.1-0.4 \times 10^{-6}$		SF.R36		glc	94
			"		"	58

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Caproic acid						
	220×10^{-3}	EPA	E.I18		glc ms	2
			SF.R36		glc	58
	2.5×10^{-6}		SF.R36			94
			SF.R59		glc	97

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
i-Caproic acid	$<10 \times 10^{-3}$	WPRL	LF		glc	
n-Caproic acid	17×10^{-3}	WPRL	LF		glc	
	$0.3\text{-}6.2 \times 10^{-6}$		SF.R36		"	94
Crotonic acid	32×10^{-3}	WPRL	LF		glc	
Decanoic acid (capric)		EPA	E.I5		glc ms	20
		"	E.D1		glc	
Dehydroabietic acid	20×10^{-6}	EPA	E.I9		glc ms	2
	0.4×10^{-3}	"	E.I5		"	"
		"	E.I8		"	"
		"	SF.R/I5		"	20
10,12-Dimethy tridecanoic acid		EPA	E.I5		glc ms	2
Docosanic acid (C_{22}, behenic)	0.1×10^{-6}	EPA	E.D3a		glc	
			SF.R5		glc ms	23
		EPA	E.I5		"	2
Dodecanoic acid (lauric)			SF.R5		glc ms	23
		EPA	E.I5		"	20
	0.5×10^{-6}	"	E.D1		glc	
	0.3×10^{-6}	"	E.D3a		"	
		"	E.D7		"	
Eicosanoic acid (C_{20}, arachidic)		EPA	SF.R/I5		glc ms	2,20
			SF.R5		"	23
	0.3×10^{-6}	EPA	E.D1		glc	
Fumaric acid			SF.R59		glc	97
Formic acid	$10\text{-}24 \times 10^{-6}$		SF.R36		glc	94
	$3\text{-}18 \times 10^{-6}$		SF.L5		lc	95
			SF.R19,36		lc pc	96
Fulvic acid	$0.3\text{-}29.0 \times 10^{-6}$		T5		uv	98
Glutamic acid	10×10^{-6}	WPRL	E.D3b	Jan '73		

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Heptadecanoic acid (C_{17}, margaric)						
	0.5×10^{-6}	EPA	E.I5		glc ms	2
	0.2×10^{-6}	"	E.D1		glc	
		"	E.D3a		"	
		"	E.D7		"	
Heptanoic acid						
		EPA	E.I5		glc ms	20
			SF.R36		glc	58
		EPA	E.D1		"	
Hippuric acid						
	2×10^{-6}	WPRL	E.D3b	Jan '73		
Homovanillic acid						
		EPA	E.I5		glc ms	2
Humic acid	$\sim 20\text{-}50 \times 10^{-3}$	SLEE	SB	Feb '73	ir	
	1×10^{-3}	"	T	Jan '73	"	
β-Hydroxymyristic acid						
	$>0.1 \times 10^{-6}$	EPA	E.D1 & 7		glc	
β-Hydroxypalmitic acid						
	$>0.1 \times 10^{-6}$	EPA	E.D7		glc	
β-Hydroxystearic acid						
	$>0.1 \times 10^{-6}$	EPA	E.D1		glc	
Isobutyric acid						
	0.3×10^{-6}		SF.R			94
Isopalmitic acid						
		EPA	E.I5		glc ms	2
Isopimaric acid						
		EPA	E.I5		glc ms	2
		"	SF.R/I5		"	20
Isovaleric acid						
	0.22×10^{-6}		SF.R			
Lactic acid						
			SF.R59		glc	97
			SF.R19,36		lc po	96
Lignoceric acid						
		EPA	E.I5		glc ms	20
Linoleic acid						
		EPA	E.I5		glc ms	2

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Maleic acid			SF.R59		glc	97
Malonic acid			SF.R59		glc	97
Mandelic acid		EPA	E.I5		glc ms	2
13-Methylpentadecanoic acid		EPA	E.I5		glc ms	2
Myristic acid			SF.R5		glc ms	23
		EPA	E.I5		"	2
		"	"		"	20
	5×10^{-6}	WPRL	E.D3b	Nov '72		
	1.3×10^{-6}	EPA	E.D1		glc	
	0.5×10^{-6}	"	E.D3a		"	
	0.1×10^{-6}	"	E.D7		"	
2-Naphthoic acid	0.16×10^{-3}	EPA	E.I9		glc ms	2
Neoabietic acid		EPA	E.I5		glc ms	2
Nonadecanoic acid, (C_{19})		EPA	E.D1		glc	
Nonanoic acid, (pelargonic)			SF.R5		glc ms	23
		EPA	E.I5		"	20
Octanoic acid, (caprylic)		EPA	E.I5		glc ms	20
			SF.R36		glc	58
			SF.R5		glc ms	23
		EPA	ED.1		glc	
Oleic acid		EPA	E.I5		glc ms	2
			SF.R5		"	23
		EPA	E.I8		"	"
	25×10^{-6}	WPRL	E.D3b	Nov '72		
	7.0×10^{-6}	EPA	E.D1		glc	
	1.3×10^{-6}	"	E.D3a		"	
	0.2×10^{-6}	"	E.D7		"	
Oxalic acid			SF.R59		glc	97

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Palmitic acid						
			SF.R5		glc ms	23
	50×10^{-6}	WPRL	E.D3b	Nov '72	"	
		CEN	SF.R	1972	"	
		EPA	E.I14		"	2
		"	E.I8		"	"
	13×10^{-6}	"	E.I5		"	"
		"	SF.R/I5		"	20
	28×10^{-6}	"	E.D1		glc	
	6×10^{-6}	"	E.D3a		"	
	0.6×10^{-6}	"	E.D7		"	
Palmitoleic acid						
	0.5×10^{-6}	EPA	E.D1		glc	
	0.4×10^{-6}	"	E.D7		"	
		"	E.I5		glc ms	2
Pentadecanoic acid						
			SF.R5		glc ms	23
		EPA	E.I5		"	2
	0.3×10^{-6}	"	E.D1		glc	
	0.3×10^{-6}	"	E.D3a		"	
		"	E.D7		"	
Phenylacetic acid						
	$\sim 10 \times 10^{-6}$	EPA	E.D1		hplc glc	
		"	E.D3a		glc	
		"	E.D7		"	
Phenylpropionic acid						
		EPA	E.D1		glc	
o-Phthalic acid						
	200×10^{-6}	EPA	E.D1		hplc uv ms	
			SF.R5		glc ms	23
Pimaric acid						
	0.12×10^{-3}	EPA	E.I5		glc ms	2
		"	SF.R/I5		"	20
Propionic acid						
	215×10^{-3}	WPRL	LF		glc	
	up to 7×10^{-6}		SF.L5		lc	95
	$0.1\text{-}0.8 \times 10^{-6}$		SF.R36		glc	94
Stearic acid						
	0.02×10^{-3}	EPA	E.I5		glc ms	2
		"	E.I14		"	"
		"	SF.R/I5		"	20
	0.1×10^{-3}	WPRL	E.D3b	Nov '72		
			SF.R5		glc ms	23
	32×10^{-6}	EPA	E.D1		glc	
	10×10^{-6}	"	E.D3a		"	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Stearic acid (contd)	0.3×10^{-6}	EPA	E.D7		glc	
Succinic acid			SF.R59		glc	97
Tannins (as tannic acid)	1.6×10^{-3}	WPRL	E.D3b	Jan '72		
Terephthalic acid	0.1×10^{-3}		SF/E.I			99
Tetracosanic acid, (C_{24} lignoceric)		EPA	SF.R/I5		glc ms	2
Toluic acid	0.24×10^{-3}	EPA	E.I13		glc ms	2
Undecanoic acid		EPA	E.I5		glc ms	20
			SF.R36		glc	58
Valeric acid	0.16×10^{-6}		SF.R			
	0.5	EPA	E.I18		glc ms	2
i-Valeric acid	52×10^{-3}	WPRL	LF		glc	
	$0.1\text{-}1.7 \times 10^{-6}$		SF.R36		"	94
		EPA	E.D1		"	
n-Valeric acid	55×10^{-3}	WPRL	LF		glc	
	$0.1\text{-}0.3 \times 10^{-6}$		SF.R36		"	94
			SF.R59		"	97

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ESTERS						
6,8,11,13-Abietatetraen-18-oate		EPA	SF.R/I5		glc ms	20
n-Butyl benzoate	$0.1-0.5 \times 10^{-6}$		SF.R25/I21	1972-73	glc ms	68
Dialkyl phthalate		UZ	T & SF.L1		glc ms	22
Dibutyl phthalate			SF.R25/I.21	1972-73	glc ms	68
		KK	SF.R5	1970-71	"	4
			SF.R12		"	5
	$0.2-2 \times 10^{-3}$	WPRL	E.D3b	Nov '72	"	
	5×10^{-6}	WRA	SF.R6	Sept'72	"	
		EPA	LF		"	20
	0.35×10^{-3}		SF.R66		glc	100
Diethyl phthalate			SF.R25/I21	1972-73	glc ms	68
Di-2-ethyl-n-butyl phthalate		EPA	LF		glc ms	20
Didecyl phthalate		WPRL	E.D3b	Nov '72		
Di-2-ethylhexyl phthalate			SF.R12		glc ms	5
			SF.R25/I21	1972/73	"	68
		WRA	SF.R6	Sept'72		
		KK	SF.R5	1970/71	glc ms	4
		EPA	SF.R59		glc ms ir nmr	20
Diethyl phthalate		EPA	E.I16		glc ms	2
		"	LF		"	20
Diheptyl phthalate		WPRL	E.D3b	Nov '72		
Dimethyl phthalate		EPA	E.I31		glc ms	2
		"	E.I16		"	"
Dinonyl phthalate		WPRL	E.D3b	Nov '72		
Di-n-octyl phthalate		WPRL	E.D3b	Nov '72		
Dipropyl phthalate		KK	SF.R5	1970/71	glc ms	4
Bis-(2-ethylhexyl)azelate		EPA	E.I5		glc ms	2

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
2-Ethylhexyl phthalate		KK	SF.R5		glc ms	4
Ethylphenyl phthalate		EPA	E.I		glc ms	2
Fatty acid methyl esters		KK	SF.R5		glc ms	4
Iso-octyl phthalate		EPA	E.I18		glc ms	2
Methyl palmitate			SF.R5		glc ms	23
Methyl stearate	2×10^{-6}	WRA	SF.R6 SF.R5	Sept'72	glc ms	23
n-Octyl, 2-ethylhexyl phthalate		WPRL	E.D3b	Nov '72		
Total phthalate esters		EPA	E.I		glc ms	48
	$0.88\text{-}1.9 \times 10^{-6}$	CEN	SF.R12 SF.R	May '72 1971/72	hplc	101
	50×10^{-6}	WRA	SF.R6	Sept'72		
Triethylorthoformate			SF.R		glc ms	23

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ALCOHOLS						
Benzyl alcohol		EPA	E.I		glc ms	48
		"	E.I23		"	2
Borneol		EPA	E.I5		glc ms	20
1-Butanol		EPA	E.I23		glc ms	20
	16×10^{-3}	"	E.I8		"	"
2-Butoxyethanol		EPA	E.I23		glc ms	2
Caran-4-ol		UZ	SF.L1			10
Cyclohexanol		KK	SF.R5	Nov '71		4
		EPA	E.I18		glc ms	2
1-Decanol	2.5×10^{-3}	EPA	E.I18		glc ms	20
	2.5×10^{-3}	"	E.I23		"	2
			SF.R5		"	23
Di-isobutyl carbinol	27×10^{-6}		SF.R10		glc ir	25
3,3-Diphenylpropanol		EPA	E.I		glc ms	48
		"	E.I23		"	2
Endo-2-camphanol		EPA	T1			36
Ethanol		CEN	SF.R	Jun '72		
2-Ethyl hexanol	41×10^{-6}		SF.R10		glc ir	25
		KK	SF.R5			4
	19×10^{-6}	EPA	E.I5		glc ms	2
		"	E.I31		"	"
		"	SF.R/E.I32		"	"
Eugenol and isomers		EPA	E.I5		glc ms	2
Exo-2-camphanol		EPA	T1			36
Fenchyl alcohol		EPA	SF.R19/I5		glc ms	2
		"	E.I5		"	"
Geosmin	0.03×10^{-6}	EPA	SF.L9	Mar '68	glc ms	20,102
		RID	SF.R67			103

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Glycerol		EPA	E.D1		hplc	
Heptanol		KK	SF.R5	Nov '71	glc ms	4
1-Hexanol	65×10^{-3}	EPA	E.I8,23		glc ms	2,20
			SF.R5		"	23
Isoborneol		EPA	T1			24
		"	E.I5		glc ms	20
Isopentyl alcohol	17×10^{-3}	EPA	E.I		glc ms	2
p-Menthen-1,8-ol		EPA	T1			36
Methanol	27×10^{-3}	WPRL	LF		glc	
α-Methylbenzyl alcohol		EPA			glc ms	48
2-Methylisoborneol		RID				103
	0.1×10^{-6}	EPA	T7,SF.R65 & SF.L9	Mar '68	glc ms nmr	20,102
Monoterpenic alcohol		CEN	SF.R	Jun '72	glc ms	
1-Octanol	19×10^{-3}	EPA	E.I8,23		glc ms	2,20
1-Pentanol		EPA	E.D3a		glc	
Phenylmethyl carbinol	17×10^{-6}		SF.R10		glc ir	25
Phenyl octadecanol		KK	SF.R5	Nov '71	glc ms	4
Phenylpropanol			SF.R5		glc ms	23
Terpinene-4-ol		EPA	E.I5		glc ms	2
		"	SF.R19/I5		"	"

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
α-Terpineol						
	0.2×10^{-3}	CEN	SF.R	Jun '72	glc ms	
		EPA	E.I		"	48
		"	E.I5		"	2
		"	E.I18		"	"
		"	E.I23		"	"
		"	SF.R11		"	20

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ARYLALKANES						
Alkylbenzene						
			SF.R17		glc ms	29
		KK	SF.R5	1970/71	"	4
		CEN	SF.R		"	
		ISU	SB.1		ms	1
Alkylindane						
		ISU	SB.1		ms	1
Azulene						
		EPA	E.I17		glc ms	24
C_4-Benzenes						
		UZ	T3 & SF.L1		glc ms	10,22
C_5-Benzenes						
		UZ	T3 & SF.L1		glc ms	10,22
C_6-Benzenes						
		UZ	T3 & SF.L1		glc ms	10,22
Butylbenzene						
		EPA	T1		glc ms	36
			SF.R5		"	23
t-Butylbenzene						
		KK	SF.R5	1970/71	glc ms	4
Cymene						
		UZ	SF.L1		glc ms	10
p-Cymene						
		KK	SF.R5	1970/71	"	4
		EPA	E.I10		"	2
		"	E.15		"	20
Diethylbenzene						
		KK	SF.R5	1970/71	glc ms	4
Dimethyl benzene isomers						
		EAWAG	SF.L	1972		
		UZ	SF.L1		glc ms	10
1,2-Dimethylbenzene						
		UZ	T3 & SF.L1		glc ms	22
1,3-Dimethylbenzene						
		UZ	T3 & SF.L1		glc ms	22
1,4-Dimethylbenzene						
		UZ	T3 & SF.L1		glc ms	22

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Dimethylethylbenzene		UZ	SF.L1		glc ms	10
Diphenylethane		KK	SF.R5	1970/71	glc ms	4
		EPA	SF.R19/I5			2
Ethylbenzene		EPA	T/SF.R36		glc ms	47
		"	T1			36
	1.2×10^{-6}		SF.R10		glc ir	25
	$<5 \times 10^{-6}$	ISU	SB.1		glc ms	1
		EPA	E.D3a		glc	
		UZ	T3 & SF.L1		glc ms	10,22
		EAWAG	SF.L	1972		
Ethylindane		UZ	T3 & SF.L1		glc ms	22
2-Ethyltoluene		EPA	E.I23		glc ms	2
		UZ	T3 & SF.L1		"	22
3-Ethyltoluene		UZ	T3 & SF.L1		glc ms	
4-Ethyltoluene		UZ	T3 & SF.L1		glc ms	
Indane		EPA	E.I		glc ms	48
	7.0×10^{-6}	"	E.I8,23		"	2,20
		UZ	SF.L1		"	22
		ISU	SB.1		ms	1
Heptylbenzene			SF.R5		glc ms	23
Hexylbenzene			SF.R5		glc ms	23
Isobutylbenzene		UZ	SF.L1		glc ms	10
Isopropylbenzene		ISU	SB1		glc ms	1
		KK	SF.R5	1970/71	"	4
		EPA	E.I		"	2
Isopropyltoluene		UZ	SF.L1		glc ms	10
Methylbiphenyl		EPA	T1			36
		"	E.I		glc ms	48
Methylcymene		KK	SF.R5	1970/71		4

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
1-Methyl-4-ethylbenzene		EPA	LF		glc ms	20
Methylindanes		UZ	SF.L1		glc ms	22
Methylpropylbenzene		UZ	SF.L1		glc ms	10
o-Methylstyrene	1×10^{-6}	EPA "	E.D3a E.I8		glc glc ms	20
Pentylbenzene			SF.R5		glc ms	23
Propylbenzene		UZ	T3 & SF.L1 SF.R5		glc ms "	10,22 23
Propyltoluene		UZ	T3 & SF.L1		glc ms	10,22
Styrene	2.6×10^{-6} 1×10^{-6} 31×10^{-6}	EPA " EPA "	T/SF.R36 E.I16 SF.R17 SF.R10 T1 E.I8		glc ms " " glc ir glc ms	47 20 29 25 36 20
Tetralin	48×10^{-6}		SF.R10		glc ir	25
Tetramethylbenzene isomers		KK UZ EPA	SF.R5 SF.L1 E.I10	1970/71	glc ms " "	4 10 2
Tetramethyldiphenylmethane		KK	SF.R5	1970/71	glc ms	4
Toluene	$<0.1 \times 10^{-3}$	EPA " CEN EPA UZ	T/SF.R36 T1 SF.R T2 E.D3a T3 & SF.L1	1972	glc ms glc ms glc glc ms	47 36 9 10,22
Tri-t-butylbenzene		KK	SF.R5	1970/71	glc ms	4
1,2,3-Trimethylbenzene		UZ	T3 & SF.L1		glc ms	22

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
1,2,4-Trimethylbenzene		UZ	T3 & SF.L1		glc ms	22
Trimethyldiphenylbenzene		KK	SF.R5	1970/71	glc ms	4
Trimethyldiphenylmethane		KK	SF.R5	1970/71	glc ms	4
m-Xylene	6.0×10^{-6}	EPA	E.I23		glc ms	2
	8×10^{-6}	"	E.I8		"	20
o-Xylene	6.0×10^{-6}	EPA	E.I23		glc ms	2
	6.0×10^{-6}	"	E.I8		"	20
p-Xylene	2.0×10^{-6}	EPA	E.I23		glc ms	2
	2.0×10^{-6}	"	E.I8		"	20
Xylene isomers	0.2×10^{-6}	CEN	SF.R	Oct.'71		
			T2		glc ms	9
	0.32×10^{-3}	EPA	E.I		"	48
		"	T/SF.R36		"	47
			SF.R5		"	23

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ALKANES AND ALKENES						
n-Alkanes	$0.06-0.60 \times 10^{-3}$	KK	SF.R5	1972/73	glc ms	4
		RID	SF.R67	1971		104
		CEN	SF.R	1972		
		EAWAG	SF.L	"		
		WRA	SF.R6			
		UZ	SF.L1		glc ms	10
		EPA	E.I		"	48
		"	LF		"	20
	7.2×10^{-6}		SF.L2			105
	0.1×10^{-3}		SF.RU5			106
	$0.3-0.5 \times 10^{-3}$		SF.RL5			"
n-Alkenes						
		CEN	SF.R	1972		
		UZ	SF.L1		glc ms	10
$C_{21}-C_{24}$ Alkanes		UZ	T3 & SF.L1		glc ms	22
$C_{20}-C_{33}$ Alkanes	$0.2 - 3.8 \times 10^{-6}$		SF.R & L			107
Cyclohexane	0.36×10^{-3}		T2		glc ms	9
Cyclohexene	0.13×10^{-3}		T2		glc ms	9
1,5-Cyclooctadiene		EPA	E.I23		glc ms	2
		"	E.I		"	48
Cyclopentadiene	0.36×10^{-3}		T2		glc ms	9
Cyclopentane	0.16×10^{-3}		T2		glc ms	9
Cyclopentene & methyl cyclopentene	0.32×10^{-3}		T2		glc ms	9
n-Decane	30×10^{-6}	EPA	E.I23		glc ms	20
		UZ	T3 & SF.L1		"	22
Dimethylstyrene		CEN	SF.R	Jun. '72		
N-Dodecane	$0.031-0.22 \times 10^{-3}$	EPA	E.I8		glc ms	20
		"	E.I5		"	2
		UZ	T3 & SF.L1		"	22

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Eicosane	0.3×10^{-3}	EPA	E.I8		glc ms	20
		UZ	T3 & SF.L1		"	22
Ethylidenecyclopentane		EPA	E.I5		glc ms	2
Ethyltoluene isomers		EPA	E.I		glc ms	48
		UZ	T3 & SF.L1		"	10,22
Heineicosane	0.19×10^{-3}	EPA	E.I8		glc ms	20
Heptadecane		UZ	T3 & SF.L1		glc ms	22
		EPA	E.I18		"	2
	$22\text{-}340 \times 10^{-6}$	"	E.I8		"	20
		"	SF.R11		"	20
Hexadecane		UZ	T3 & SF.L1		glc ms	22
		EPA	E.I18		"	2
	$26\text{-}420 \times 10^{-6}$	"	E.I8		"	20
		"	E.I5		"	2
		"	E.I23		"	"
		"	SF.R11		"	20
Hydrocarbons (C_1-C_4)	12×10^{-3}		T2		glc ms	9

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
1-Isopropenyl-4-isopropylbenzene		EPA	T1			36
Isodecane		UZ	T3 & SF.L1		glc ms	10,22
Isododecane		UZ	SF.L1		"	10
Isononane		UZ	SF.L1		"	10
Isoundecane		UZ	SF.L1		"	10
Isoundecene		UZ	T3 & SF.L1		"	10,22
Limonene			SF.R17		glc ms	29
		UZ	SF.L1			10
		EPA	E.I5		glc ms	20
2-Methyl-4-isopropenylcyclohexane		CEN	SF.R	Jun '72		
Nonadecane		UZ	T3 & SF.L1		glc ms	22
	0.013-0.31x10-3	EPA	E.18		"	20
n-Nonane		UZ	T3 & SF.L1		glc ms	22
Octadecane		UZ	T3 & SF.L1		glc ms	22
	17-330x10^{-6}	EPA	E.I8		"	20
		"	E.18		"	2
		"	SF.R11		"	20
Pentadecane		UZ	T3 & SF.L1		glc ms	22
	0.03-0.49x10^{-3}	EPA	E.I8		"	20
		"	E.I5,23		"	"
Pentene	0.5x10^{-3}		T2		glc ms	9
β-Pinene		EPA	E.I5		glc ms	2
Pinene isomer	8.0x10^{-6}	EPA	E.I5		glc ms	2
Terpene		UZ	SF.L1			10
Terpinolene		EPA	E.I5		glc ms	2
Tetradecane		UZ	T3 & SF.L1		glc ms	22
	0.039-0.58x10^{-3}	EPA	E.I8		"	20
n-Tridecane	0.042-0.39x10^{-3}	EPA	E.I8		glc ms	20
		"	E.I5		"	"
n-Undecane		EPA	E.I5		glc ms	20
	27-50x10^{-6}	"	E.I8		"	"
	20x10^{-6}	"	E.I23		"	"
		UZ	T3 & SF.L1		"	22

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
AMINO ACIDS & PROTEINS						
Alanine						
	5×10^{-6}	WPRL	E.D3b	Jan '73	hplc c	
			SF.L11		pc	108
	11.2×10^{-3}		E.D1		"	109
	7.8×10^{-3}		E.D3a		"	"
	7.3×10^{-3}		E.D3b		"	"
	27.8×10^{-3}		S.AS		"	"
	6.3×10^{-3}		S.SS		"	"
2-Amino-n-butyric acid						
	0.1×10^{-3}	WPRL	E.D3b	Jan '73	hplc c	
Arginine						
	10.6×10^{-3}		E.D1		pc	109
	6.4×10^{-3}		E.D3a		"	"
	7.0×10^{-3}		E.D3b		"	"
	12.8×10^{-3}		S.AS		"	"
	5.4×10^{-3}		S.SS		"	"
Asparagine						
	5.1×10^{-3}		E.D1		pc	109
	3.8×10^{-3}		E.D3a		"	"
	2.9×10^{-3}		E.D3b		"	"
	14.9×10^{-3}		S.AS		"	"
	9.6×10^{-3}		S.SS		"	"
Aspartic acid						
	0.1×10^{-6}	WPRL	E.D3b	Jan '73	hplc c	
			SF.L11		pc	108
Creatine						
	0.4×10^{-3}	WPRL	E.D3b	Jan '73	hplc c	
Creatinine (as C)						
	$2.7\text{-}3.5 \times 10^{-3}$	WPRL	E.D1			80
Cystine						
	6.3×10^{-3}		E.D1		pc	109
	3.2×10^{-3}		E.D3a		"	"
	2.2×10^{-3}		E.D3b		"	"
	23.8×10^{-3}		S.AS		"	"
Glutamic acid						
	10×10^{-6}	WPRL	E.D3b		hplc c	
			SF.L11		pc	108
	24.8×10^{-3}		E.D1		"	109
	15.3×10^{-3}		E.D3a		"	"
	14.6×10^{-3}		E.D3b		"	"
	50.8×10^{-3}		S.AS		"	"
	23.8×10^{-3}		S.SS		"	"
Glutamine						
	5×10^{-6}	WPRL	E.D3b	Jan '73	hplc c	
Glycine						
			SF.L11		pc	108
	4.2×10^{-3}		E.D1		"	109
	3.6×10^{-3}		E.D3a		"	"
	2.4×10^{-3}		E.D3b		"	"
Glycine & serine						
	29.4×10^{-3}		S.AS		pc	109
	9.0×10^{-3}		S.SS		"	"

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Hippuric acid	2×10^{-6}	WPRL	E.D3b		hplc c	
Histidine & Lysine	18.1×10^{-3}		E.D1		pc	109
	8.6×10^{-3}		E.D3a		"	"
	8.9×10^{-3}		E.D3b		"	"
	10.1×10^{-3}		S.AS		"	"
	1.1×10^{-3}		S.SS		"	"
Leucine	21.3×10^{-3}		E.D1		pc	109
	9.8×10^{-3}		E.D3a		"	"
	10.6×10^{-3}		E.D3b		"	"
	31.3×10^{-3}		S.AS		"	"
	8.6×10^{-3}		S.SS		"	"
Lysine & Histidine	18.1×10^{-3}		E.D1		pc	109
	8.6×10^{-3}		E.D3a		"	"
	8.9×10^{-3}		E.D3b		"	"
	10.1×10^{-3}		S.AS		"	"
	1.1×10^{-3}		S.SS		"	"
Phenylalanine	40×10^{-6}	WPRL	E.D3b	Jan '73	hplc c	
	11.3×10^{-3}		E.D1		pc	109
	6.5×10^{-3}		E.D3a		"	"
	4.9×10^{-3}		E.D3b		"	"
	11.2×10^{-3}		S.AS		"	"
	9.7×10^{-3}		S.SS		"	"
Proline			SF.R		pc	72
Serine	0.5×10^{-6}	WPRL	E.D3b	Jan '73	hplc c	
	2.4×10^{-3}		E.D1		pc	109
	1.9×10^{-3}		E.D3a		"	"
	1.5×10^{-3}		E.D3b		"	"
Threonine	0.3×10^{-6}	WPRL	E.D3b	Jan '73	hplc c	
	5.6×10^{-3}		S.AS		pc	109
Total bound amino acids (as leucine)	0.49×10^{-3}	WPRL	E.D3b	Jan '73	c	
Total free amino acids (as leucine)	1.44×10^{-3}	WPRL	E.D3b	Jan '73	c	
(as N)	$2\text{-}25 \times 10^{-6}$		SF.R16,L5		"	32
(as C)	$2.0\text{-}5.0 \times 10^{-3}$	WPRL	E.D1		"	80
(as C)	0.06×10^{-3}	"	E.D3b		"	"
	$\sim 1 \times 10^{-9}$		SF.L11			108
Total peptides	0.1×10^{-6}		SF.L11			108

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Total protein						
(as N)	$20\text{-}340 \times 10^{-6}$		SF.R16,L5		c	32
(as C)	$25.5\text{-}31 \times 10^{-3}$	WPRL	E.D1		"	80
(as C)	2.99×10^{-3}	"	E.D3b		"	"
	$70\text{-}130 \times 10^{-6}$		T			110
	$1.6\text{-}7.4 \times 10^{-3}$		E.D3			111
Tryptophan						
			SF.R5		pc	72
	1.9×10^{-3}		S.SS		"	109
Tyrosine						
	9.7×10^{-3}		E.D1		pc	109
	6.8×10^{-3}		E.D3a		"	"
	7.1×10^{-3}		E.D3b		"	"
Tyrosine & Valine						
	22.4×10^{-3}				pc	109
Valine						
	0.1×10^{-3}	WPRL	E.D3b	Jan '73	hplc c	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key) Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	Reference
CARBOHYDRATES						
Allulose			E.D1,3		hplc c	74
Arabinose			E.D1,3		hplc c	74
Cellobiose			E.D1,3		hplc c	74
Deoxyribose			E.D1,3		hplc c	74
Fructose	12×10^{-6}	WPRL	E.D3b	Sept '71	glc	
	up to 3.75×10^{-3}		E.D1		"	112
			E.D1,3		hplc c	74
Galactose	$< 1 \times 10^{-6}$	WPRL	E.D3b	Sept '71	glc	
		EPA	E.D1		glc hplc	
	$0.10-3.20 \times 10^{-3}$		"		glc	112
			E.D1,3		hplc c	74
Glucose	34×10^{-6}	WPRL	E.D3b	Sept '71	glc	
		EPA	E.D1		glc hplc	
	$0.35-19.5 \times 10^{-3}$		E.D1		glc	112
	$1-5 \times 10^{-6}$		SF.L12			113
	$1-5 \times 10^{-6}$		SF.L11			108
			E.D1,3		hplc c	74
Lactose			E.D1,3		hplc c	74
Maltose		EPA	E.D1		glc hplc	
			E.D1,3		hplc c	74
Mannose			ED1,3		hplc c	74
Raffinose			E.D1,3		hplc c	74
Rhamnose			E.D1,3		hplc c	74
Ribose			E.D1,3		hplc c	74
Sorbose			E.D1,3		hplc c	74
Sucrose	$3.15-4.45 \times 10^{-3}$		E.D1		glc	112
	$0.10-0.90 \times 10^{-3}$		E.D2		"	"
	up to 0.20×10^{-3}		"		"	"
	up to 0.10×10^{-3}		"		"	"
	up to 4.00×10^{-3}		"		"	"
	$2-10 \times 10^{-6}$		SF.L12			113
	$2-10 \times 10^{-6}$		SF.L11			108
			ED1,2		hplc c	74

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Total carbohydrates						
(as glucose)	0.1×10^{-3}	WPRL	E.D3b	Sept '71	c	
(")	$0.8\text{-}2.4 \times 10^{-3}$		E.D3		"	111
(as C)	$55.0\text{-}330 \times 10^{-3}$	WPRL	E.D1		"	80
(")	1.63×10^{-3}	"	E.D3b		"	"
(as glucose)	$70\text{-}900 \times 10^{-6}$		SF.R16,L5			32
Total polysaccharides						
(as glucose)	1.7×10^{-3}	WPRL	E.D3b	Sept '71	c	
	$36\text{-}138 \times 10^{-6}$		T		"	110
	$0.2\text{-}1.0 \times 10^{-3}$		SF.R16,L5			32
Xylose						
			ED1,3		hplc c	74

	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
STEROIDS						
Cholesterol						
	20×10^{-6}	WPRL	E.D3b	Jun '71	hplc glc ms	
	1.1×10^{-6}	WRA	SF.R6	Oct '70	tlc glc	
	0.2×10^{-6}	"	"	Nov '70	"	
	1.1×10^{-6}	"	SF.RU	Oct '70	"	
	ND	"	SB.3	Nov '70	"	
	0.16×10^{-6}	"	"	Dec '70	"	
	62×10^{-6}	"	E.D3b	Oct '70	"	
	up to 2.5×10^{-6}	"	SF		"	114
Coprostanol						
	10×10^{-6}	WPRL	E.D3b	Jun '71	hplc glc ms	
	0.8×10^{-6}	WRA	SF.R6	Oct '70	tlc glc	
	0.5×10^{-6}	"	"	Nov '70	"	
	ND	"	SF.RU	Oct '70	"	
	"	"	SB.3	Nov '70	"	
	0.26×10^{-6}	"	"	Dec '70	"	
	0.176×10^{-3}	"	E.D3b	Oct '70	"	
	up to 5.0×10^{-6}		SF		"	114
Total steroids (as cholesterol)						
	0.165×10^{-3}	WPRL	E.D3b	Jun '71	c	
Total synthetic steroid hormones						
	100×10^{-6}		E.D1			115

...ce	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
PIGMENTS, ENZYMES, VITAMINS, NUCLEOSIDES & MISCELLANEOUS COMPOUNDS						
Adenosine		EPA	E.D1		uv glc hplc	
Amylase			SF			117
Biotin	~10^{-9}		SF.L			118
Chlorophylls	0.05-0.18x10^{-6}		SF.L5			119
Guanosine	50 x 10^{-6}	EPA	E.D1		uv glc ms hplc	
Nicotinic acid	0.3-3.0x10^{-6}		SF.L10			120
	~10^{-9}		SF.L			118
Pantothenic acid	~10^{-9}		SF.L			118
Phosphatase			SF			117
Pteroylglutamic acid (folic acid)	0.26 x 10^{-6}		SF.R18			120
	24-104x10^{-9}		SF.L10			"
	~10^{-9}		SF.L			118
Saccharase			SF			117
Urochromes			SF.R5/E.D3			122
Vitamin B1 (thiamine)	~10^{-9}		SF.L			118
Vitamin B_{12}	5-28 x 10^{-9}		SF.L10			120
	5-20 x 10^{-9}		SF.L13			121
Xanthophylls	0.21-1.2x10^{-6}		SF.L5			119

ADDENDUM

ce	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
POLYNUCLEAR AROMATIC HYDROCARBONS AND BENZENE						
Acenaphthene		UZ	SF.L1 & T3	1973	glc ms	123
Anthracene		EAWAG	E.D3	Apr '74	glc ms	124
			SF.R17	1972	"	29
Benzene		UZ	SF.L1,T3,SB6	1973	glc ms	123
		EAWAG	E.D3	Apr '74	"	124
		EPA	T1			36
			SF.R5/EI			122
Biphenyl		UZ	SF.L1,T3,SB6	1973	glc ms	123
		EAWAG	E.D3	Apr '74	"	124
			SF.R25	1972-73	"	68
Bitumen type compounds	$0.08-0.1 \times 10^{-3}$		SF.R8			125
Chrysene			SF.R17	1972	glc ms	29
Dimethylnaphthalene		UZ	SF.L1,T3,SB6	1973	glc ms	123
Fluoranthene		EAWAG	E.D3	Apr '74	glc ms	124
			SF.R17	1972	"	29
Fluorene		EAWAG	E.D3	Apr '74	glc ms	124
			SF.R17	1972	"	29
Indene		EPA	E.D3a		glc ms	
1-Methylnaphthalene		UZ	SF.L1,T3,SB6	1973	glc ms	123
		EAWAG	E.D3	Apr '74	"	124
2-Methylnaphthalene		UZ	SF.L1,T3,SB6	1973	glc ms	123
	1.4×10^{-6}	EAWAG	E.D3	Apr '74	"	124
Methylphenanthrenes		EAWAG	E.D3	Apr '74	glc ms	124
Naphthalene		EAWAG	E.D3	Apr '74	glc ms	124
			SF.R5/E.I			122
			SF.R17	1972	glc ms	29
Phenanthrene		EAWAG	E.D3	Apr '74	glc ms	124
			SF.R17	1972	"	29
Pyrene		EAWAG	E.D3	Apr '74	glc ms	124
			SF.R17	1972	"	29
Total PAH	$1-10 \times 10^{-9}$		SB2			21
(normal waters)	$25-100 \times 10^{-9}$		SF			"
(badly polluted waters)	$0.10-1.30 \times 10^{-6}$		SF			"

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
AMINES AND DERIVATIVES						
5-Acetylamino-6-amino-3-methyluracil	$30\text{-}140 \times 10^{-6}$	EPA	E.D1		uv glc hplc	74
Aminobenzoic acid			SF.R5		pc	72
Aminomethylpyridine		UZ	SF.L1 & T3	1973	glc ms	123
Amino sugars (as C)	$0.5\text{-}1.8 \times 10^{-3}$	WPRL	E.D1			80
Cadaverine		SF.R5/E.D3				122
Diethylamine		SF.R16,L5				32
Dimethylamine		SF.R16,L5				32
EDTA	$530\text{-}550 \times 10^{-6}$	WPRL	E.D3a	May '74	glc	
	740×10^{-6}	"	E.D4	"	"	
	190×10^{-6}	"	SF.R4/E.D4	"	"	
Ethylamine			SF.R16, L5			32
Hexylaniline			SF.R5		glc ms	23
Hydroxybenzamide			SF.R5		pc	72
Methylamine			SF.R16,L5			32
N-Methyl-2-pyridone-5-carboxamide	$10\text{-}20 \times 10^{-6}$	EPA	E.D1		uv glc hplc	74
N-Methyl-4-pyridone-3-carboxamide	10×10^{-6}	EPA	E.D1		uv glc hplc	74
Pentylaniline			SF.R5		glc ms	23
Picrolam, (4-amino-3,5,6-trichloropicolinic acid)	$0.4\text{-}0.8 \times 10^{-3}$)		LR.1			69
	$< 5 \times 10^{-6}$)		LR.1 - (1 month later)			"
Propylaniline			SF.R5		glc ms	23
Putrescine			SF.R5/E.D3			122
Rhodamine B	1×10^{-3}		E.D1/E.I	1971/72	tlc	24
Toluidine			SF.R5		glc ms	23
Total volatile amines (as N)	$6\text{-}100 \times 10^{-6}$		SF.R16,L5			32
Total amides (as C)	$1.2\text{-}1.5 \times 10^{-3}$	WPRL	E.D1			80
Triethylamine			SF.R16,L5			32
Trimethylamine			SF.R16,L5			32

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
NITRO AND NITROSO COMPOUNDS						
Dinitrotoluene		SF.R5			glc ms	23
o-Nitrochlorobenzene		SF.R5			glc ms	23
p-Nitrochlorobenzene		SF.R5			glc ms	23
Nitrochlorotoluene		SF.R5			glc ms	23
Nitrophenol		SF.R5/E.I				122
Nitropropylbenzene		SF.R5			glc ms	23
o-Nitrotoluene		SF.R5			glc ms	23
p-Nitrotoluene		SF.R5			glc ms	23
Nitro-p-xylene		SF.R5			glc ms	23
ORGANO PHOSPHORUS COMPOUNDS						
Tri-n-butyl phosphate		UZ	SF.L1,T3, SB6	1973	glc ms	123
ORGANO HALOGENS						
Aldrin			SF.R5	1969-72	glc	126
α-BHC	<0.01-0.48x10^{-6}		SF.R5	1969-72	glc	126
	0.01x10^{-6}		SF.R68	"	"	"
	0.15x10^{-6}		SF.R5	"	"	"
γ-BHC,(lindane)	0.1-0.3 x 10^{-6}	SETUDE	SF.RL	Apr '74	glc	
	<0.01-0.34x10^{-6}		SF.R5	1969-72	"	126
	0.02 x 10^{-6}		SF.R68	"	"	"
	0.10 x 10^{-6}		SF.R5	"	"	"
Carbon tetrachloride		UZ	SF.L1,T3,SB6	1973	glc ms	123

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Chlorobenzene			SF.R5/E.I			122
		EAWAG	E.D3	Apr '74	glc ms	124
Chloroethyl ether		EPA	T1			36
p,p'-DDD	$0.02-0.03\times10^{-6}$		SF.R5	1969-72	glc	126
p,p'-DDE	$0.01-0.12\times10^{-6}$		SF.R5	1969-72	glc	126
o,p'-DDT	$0.02-0.07\times10^{-6}$		SF.R5	1969-72	glc	126
p,p'-DDT	$0.02-0.17\times10^{-6}$		SF.R5	1969-72	glc	126
Dieldrin	$0.01-0.08\times10^{-6}$		SF.R5	1969-72	glc	126
	0.01×10^{-6}		SF.R68	"	"	"
1,3-Dichlorobenzene	0.03×10^{-6}	EAWAG	E.D3	Apr '74	glc ms	124
1,4-Dichlorobenzene		EAWAG	E.D3	Apr '74	glc ms	124
α & β-Endosulphan, (thiodan)	$<0.01-0.88\times10^{-6}$		SF.R5	1969-72	glc	126
Endrin	$<0.01-0.07\times10^{-6}$		SF.R5	1969-72	glc	126
Heptachlor	$0.01-0.04\times10^{-6}$		SF.R5	1969-72	glc	126
Heptachlor epoxide	$0.01-0.06\times10^{-6}$		SF.R5	1969-72	glc	126
Hexachlorobenzene	$0.01-0.52\times10^{-6}$		SF.R5	1969-72	glc	126
	0.01×10^{-6}		SF.R68	"	"	"
Bis-methylchloropyridine			SF.R17	1972	glc ms	29
PCBs	$0.09-0.32\times10^{-9}$		SF.R64	1972/73	glc	127
	$0.1-0.4\times10^{-6}$		SF.R59			128
	$5-3200\times10^{-3}$		S.SD			"
1,1,2,2-Tetrachloroethane	2.2×10^{-3}	EPA	E.I23		glc ms	20
Tetrachloroethylene		UZ	SF.L1,T3, SB6	1973	glc ms	123
1,2,3-Trichlorobenzene		EAWAG	E.D3	Apr '74	glc ms	124
1,2,4-Trichlorobenzene		EAWAG	E.D3	Apr '74	glc ms	124
Trichloroethane	5.4×10^{-3}	EPA	E.I23		glc ms	20
Trichloroethylene		UZ	SF.L1,T3, SB6	1973	glc ms	123

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
MERCAPTANS AND MISC. SULPHUR COMPOUNDS						
1-Phenyl-2-thiopropane		UZ	SF.L1	1973	glc ms	123
Dimethyl sulphide		UZ	SF.L1,T3,SB6	1973	glc ms	123
Dimethyl trisulphide		UZ	SF.L1	1973	glc ms	123
Thiophenol			SF.R5/E.I			122
PHENOLS AND QUINONES						
Gallic acid			SF.R5		pc	72
Hydroxybenzoic acid			SF.R5		pc	72
Phenol			SF.R5/E.I			122
	0.06×10^{-3}	EPA	E.I8		glc ms	20
Pyrocatechol	0.5×10^{-3}		E.I23			129
Tannic acid	$0.51\text{-}1.70 \times 10^{-3}$		E.D3		c	111
	1.6×10^{-3}	WPRL	E.D3b	1972	c	
Total volatile phenols	$.008\text{-}0.15 \times 10^{-3}$		SF.L5			130
HETEROCYCLICS						
Indole			SF.R5/E.D3			122
3-Methylindole		EAWAG	ED3	Apr '74	glc ms	124
Pyridine			SF.R5/E.I			122
Pyrrole			SF.R5/E.D3			122
Skatole acetic acid			SF.R5		pc	72

Surface	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
SURFACTANTS						
Anionic detergent	$1.5\text{-}12.5 \times 10^{-3}$		E.D3		c	111
KETONES, ALDEHYDES AND KETONES						
Acetone			SF.R5/E.I			122
t-Butylacetophenone		UZ	SF.L1	1973	glc ms	123
α-Camphanone		EPA	T1		glc ms	36
Camphor	30×10^{-6}	EPA	E.I5		glc ms	2
		"	SF.R19/I5		"	"
		UZ	SF.L1,T3, SB6	1973	"	10,123
Cyclocitral		UZ	SF.L1	1973	glc ms	123
Furfural	1.7×10^{-6}	EPA	E.I16		glc ms	20
Isobutanal			T2		glc ms	9
Iso-octenone		UZ	SF.L1 & T3		glc ms	22
Norcamphor		EPA	E.I5		glc ms	2
Total aldehydes (as formaldehyde)	0.11×10^{-3}		SF.L10			131

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ACIDS						
Acetic acid	10×10^{-3}	WPRL	E.D1		1c	80
Benzoic acid			SF.R5		pc	72
Butyric acid			SF.R5/E.D3			122
	1.0×10^{-3}	WPRL	E.D1		1c	80
Higher fatty acids (as C)	$71\text{-}74 \times 10^{-3}$	WPRL	E.D1			80
Propionic acid	2.6×10^{-3}	WPRIL	E.D1		1c	80
Total organic acids (as equiv./l)	$12\text{-}420 \times 10^{-6}$		SF.R16,L5			32
Total soluble acids (as C)	$21.0\text{-}34.5 \times 10^{-3}$	WPRL	E.D1			80
(as C)	1.78×10^{-3}	"	E.D3b			"
Valeric acid	0.4×10^{-3}	WPRL	E.D1		1c	80

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ESTERS						
Di-n-butyl phthalate	0.1×10^{-3}	SETUDE	SF.RL	1972-74	glc ms	
Di-iso-butyl phthalate	$\sim 0.01\text{-}0.1 \times 10^{-3}$	SETUDE	SF.RL	1972-74	glc ms	
Dioctyl phthalate	$\sim 0.01 \times 10^{-3}$	SETUDE	SF.RL	1972-74	glc ms	
Di-iso-octylphthalate	$\sim 0.01 \times 10^{-3}$	SETUDE	SF.RL	1972-74	glc ms	
ALCOHOLS						
Caran-4-ol		UZ	SF.L1	1973	glc ms	123
Cineol		UZ	SF.L1,SB6	1973	glc ms	123
2-Methyl-2-pentanol		UZ	SF.L1	1973	glc ms	123
1-Pentanol		EPA	E.D3a		glc ms	

...ce	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ARYL ALKANES						
Dimethylethylbenzene		UZ	SF.L1.T3,SB6	1973	glc ms	123
Ethylbenzene		EPA	E.D3a		glc ms	
		EAWAG	E.D3	Apr '74	"	124
Indane		EAWAG	E.D3	Apr '74	glc ms	124
Isobutylbenzene		UZ	SF.L1,T3,SB6	1973	glc ms	123
Isopropylbenzene		EAWAG	E.D3	Apr '74	glc ms	124
Isopropyltoluene		UZ	SF.L1,T3,SB6	1973	glc ms	123
Methylindane		EAWAG	E.D3	Apr '74	glc ms	124
Methylisopropylbenzene		UZ	SF.L1,T3,SB6	1973	glc ms	123
Methylpropylbenzene		UZ	SF.L1,T3,SB6	1973	glc ms	123
o-Methylstyrene		EPA	E.D3a		glc ms	
Methylstyrene isomers	0.5×10^{-6}	CEN	SF.R	1972		
		EPA	E.I		glc ms	48
		"	E.I23		"	2
n-Propylbenzene		EAWAG	E.D3	Apr '74	glc ms	124
Styrene		EPA	E.I		glc ms	48
	0.03×10^{-3}	"	E.I23		"	2
	0.003×10^{-3}	"	E.I16		"	"
Tetralin		EAWAG	E.D3	Apr '74	glc ms	124
1,2,3,5-Tetramethylbenzene		UZ	SF.L1,T3,SB6	1973	glc ms	123

	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
1,2,4,5-Tetramethylbenzene		UZ	SF.L1,T3,SB6	1973	glc ms	123
1,2,4-Trimethylbenzene		EAWAG	E.D3	Apr '74	glc ms	124
1,3,5-Trimethylbenzene		UZ	SF.L1&T3	1973	glc ms	123
Toluene		EPA	E.D3a		glc ms	
		EAWAG	E.D3	Apr '74	"	124
m-Xylene		EAWAG	E.D3	Apr '74	glc ms	124
o-Xylene		EAWAG	E.D3	Apr '74	glc ms	124
p-Xylene		EAWAG	E.D3	Apr '74	glc ms	124

Label code	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
ALKANES AND ALKENES						
1-Heptadecene		UZ	SF.L1,T3,SB6	1973	glc ms	123
Heptane		UZ	SF.L1,SB6	1973	glc ms	123
Isododecane		UZ	SF.L1,T3,SB6	1973	glc ms	123
Isononane		UZ	SF.L1	1973	glc ms	123
Limonene		UZ	SF.L1,SB6	1973	glc ms	123
Octane		UZ	SF.L1,SB6	1973	glc ms	123
1-Pentadecene		UZ	SF.L1	1973	glc ms	123
Tridecane		UZ	SF.L1	1973	glc ms	123

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